YDAE 440  
METHODS OF TEACHING AGRICULTURAL EDUCATION  
COURSE OUTLINE  
Fall Semester 2006

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Office Hours: See instructor or call for an appointment time. In general, I will be in the office available to see students on Monday, Wednesday, and Friday 9:00 - 11:00 a.m.

MWF 1:30 – 3:20, PFEN 103

“Students with disabilities must be registered with Adaptive Programs in the Office of the Dean of Students before classroom accommodations can be provided.”

Course Texts:
  • YDAE 440 Course Packet. Available only from the Youth Development and Agricultural Education World Wide Web Home Page at: http://www.ydae.purdue.edu/default2.html
  • E-Moments. Available from the following website: http://www.ydae.purdue.edu/download/undergrad/pdf/eMoments.pdf
  • Task Stream/Portfolio System.
  • Teacher Education 2005 Website. Go to the Office of Professional Preparation and Licensure website http://admin2.soe.purdue.edu/oppl/ and click on the "Guide to Teacher Preparation and Licensure at Purdue University” link.
  • Purchase 1 CD to copy the Indiana Agricultural Science Curriculum Lesson Plan Library CD that is available on reserve in the Technology Resource Center (TRC) located in BRNG 3287.
  • Purchase 2 VHS videocassette tapes capable of holding 2 hours each.
  • Purchase 1 audiocassette tape.

Purdue TaskStream Portfolio Artifacts from this course are the Cadillac Lesson Plan and the best Self-critique. INTASC Principles and SOE Themes addressed by these artifacts are:
  SOE Theme #1: Attention to Learners and SOE Theme #2: Understanding Curriculum in Context
  INTASC Principle #1: The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.
  INTASC Principle #3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
  INTASC Principle #4: The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.
  INTASC Principle #7: The teacher plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.
  INTASC Principle #9: The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.
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## Course Outline

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<thead>
<tr>
<th>SESSION</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 21</td>
<td>Introduction to class (Print out course packet and bring to class each day.)</td>
</tr>
<tr>
<td>Aug. 23</td>
<td>Introduction to Lesson Planning</td>
</tr>
<tr>
<td>Aug. 25</td>
<td>Tour of TRC - BRNG 3287 – Brenda Hash/Karen Hearn Meet in BRNG 3288 Teaching Lab: Description of Microteaching &amp; Reflective Teaching</td>
</tr>
<tr>
<td>Aug. 28 &amp; Aug. 30</td>
<td>Teaching Lab: Reflective Teaching</td>
</tr>
<tr>
<td>Sept. 1</td>
<td>Motivating Students</td>
</tr>
<tr>
<td>Sept. 4</td>
<td>LABOR DAY – No Classes</td>
</tr>
</tbody>
</table>

### Organization of Pedagogy and Content for Effective Learning

- Aug. 23
  - Introduction to Lesson Planning
- Aug. 25
  - Tour of TRC - BRNG 3287 – Brenda Hash/Karen Hearn
  - Meet in BRNG 3288
  - Teaching Lab: Description of Microteaching & Reflective Teaching
- Aug. 28 & Aug. 30
  - Teaching Lab: Reflective Teaching
- Sept. 1
  - Motivating Students

### Skills and Resources Used in Effective Teaching

- Sept. 6
  - Utilizing Teaching Skills
- Sept. 8
  - Teaching Lab: Grab Bag Extemporaneous Interest Approach
- Sept. 11
  - Indiana Agricultural Science Curriculum - Lesson Plan Library
- Sept. 13
  - Teaching Lab: 5 minute Interest Approach
- Sept. 15
  - Teaching Lab: 5 minute Interest Approach

### Teaching Methodologies

- Sept. 18
  - Utilizing Group Teaching Methods
- Sept. 20 & Sept. 22
  - Teaching lab: Peer Lesson #1: 15 minute timed lesson to include interest approach, transition, content
- Sept. 25
  - Utilizing Individualized Teaching Methods
- Sept. 27 & Sept. 29
  - Teaching lab: Peer Lesson #1: 15 minute timed lesson to include interest approach, transition, content
- Oct. 2
- Oct. 4 & Oct. 6
  - Teaching Lab: Peer Lesson #2: 15 minute complete lesson to include lecture and discussion
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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Oct. 9</td>
<td>OCTOBERBREAK – NO CLASSES</td>
</tr>
<tr>
<td>Oct. 11</td>
<td>Teaching Lab: Peer Lesson #2: 15 minute complete lesson to include lecture and discussion</td>
</tr>
<tr>
<td>Oct. 13</td>
<td>Teaching Lab: Peer Lesson #2: 15 minute complete lesson to include lecture and discussion - Continued</td>
</tr>
<tr>
<td>Oct. 16</td>
<td>Modifications and Instructional Programs for Working with Special Needs Learners in the Comprehensive Classroom – Dr. Teresa Taber Doughty</td>
</tr>
<tr>
<td>Oct. 18</td>
<td>Managing the Agricultural Classroom – Student Teacher’s Point of View</td>
</tr>
<tr>
<td>Oct. 20</td>
<td>Managing the Agricultural Education Laboratory</td>
</tr>
<tr>
<td>Oct. 23</td>
<td>Open Day For Catching Up on Course Materials</td>
</tr>
<tr>
<td>Oct. 25 – Oct. 28</td>
<td>National FFA Convention – NO CLASSES</td>
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<tr>
<td>Oct. 30</td>
<td>Teaching Lab: Peer Lesson #3: 20-minute complete lesson for grades 6-8 (middle school)</td>
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<tr>
<td>Nov. 1 &amp; Nov. 3</td>
<td>Teaching Lab: Peer Lesson #3: 20-minute complete lesson for grades 6-8 (middle school)</td>
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<td>Nov. 6</td>
<td>Exploring Approaches to Teaching and Teaching Styles</td>
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<tr>
<td>Nov. 8 &amp; Nov. 10</td>
<td>Teaching Lab: Peer Lesson #3: 20-minute complete lesson for grades 6-8 (middle school)</td>
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<td>Nov. 13</td>
<td>Utilizing Student Assisted Instruction</td>
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<tr>
<td>Nov. 15 &amp; Nov. 17</td>
<td>Teaching Lab: Peer Lesson #4: Problem solving lesson to include an experiment and/or demonstration</td>
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<tr>
<td>Nov. 20</td>
<td>IAAE-PU Officer Slating</td>
</tr>
<tr>
<td>Nov. 22 &amp; Nov. 24</td>
<td>THANKSGIVING VACATION – NO CLASSES</td>
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**Evaluation**

<table>
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<tr>
<td>Nov. 27</td>
<td>Teaching Lab: Peer Lesson #4: Problem solving lesson to include an experiment and/or demonstration</td>
</tr>
<tr>
<td>Nov. 29 &amp; Dec. 1</td>
<td>Teaching Lab: Peer Lesson #4: Problem solving lesson to include an experiment and/or demonstration</td>
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<tr>
<td>Dec. 4</td>
<td>Evaluating Student Performance</td>
</tr>
<tr>
<td>Dec. 6</td>
<td>The Agriculture Teacher as a Leader</td>
</tr>
<tr>
<td>Dec. 8</td>
<td>OPEN</td>
</tr>
<tr>
<td>Dec. 11-16</td>
<td>Final Exam</td>
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</table>
Course Expectations

Your primary objective for being in this course should be to learn, not to earn a certain grade. In order to help you learn and improve yourself, certain activities have been planned to facilitate this process. In this course, you will not be given a grade; you will receive what you earn. As a senior at Purdue University, your work should be of high quality. If your work is average, then you should expect an average grade (C).

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Due Date</th>
<th>Points</th>
<th>My Points</th>
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<tbody>
<tr>
<td>Reflective Teaching Activity</td>
<td>8/28 or 8/30</td>
<td>25</td>
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<tr>
<td>Lesson Plan #1 – “Cadillac Plan for Lecture/Discussion, Block, Grades 9-12”</td>
<td>9/15</td>
<td>100</td>
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<tr>
<td>Lesson Plan #2 – “Cadillac Plan for Lecture/Discussion and Activity, 55 min., Grades 6-8”</td>
<td>10/16</td>
<td>100</td>
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<tr>
<td>Lesson Plan #3 – “Problem Solving Lesson to include Demonstration/Experiment”</td>
<td>11/10</td>
<td>100</td>
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<tr>
<td>Lesson Plan #4 – S.A.I. Lesson Packet</td>
<td>12/1</td>
<td>100</td>
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<tr>
<td>&quot;Grab bag&quot; Extemporaneous Interest Approach</td>
<td>9/8</td>
<td>None</td>
<td></td>
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<tr>
<td>Interest Approach (5 min. w/ transition to lesson)</td>
<td>9/13, 9/15 or Evening</td>
<td>50</td>
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<tr>
<td>Peer Lesson #1: 15 minute timed lesson to include interest approach, transition, content</td>
<td>9/20, 9/22, 9/27, or 9/29</td>
<td>75</td>
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<tr>
<td>Peer Lesson #2: 15 minute complete lesson to include lecture and discussion</td>
<td>10/4, 10/6, 10/11, or 10/13</td>
<td>75</td>
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<tr>
<td>Peer Lesson #3: 20-minute complete lesson for grades 6-8 (middle school)</td>
<td>10/30, 11/1, 11/3, 11/8, or 11/10</td>
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<td>Peer Lesson #4: Problem solving lesson to include an experiment and/or demonstration</td>
<td>11/15, 11/17, 11/27, 11/29, or 12/1</td>
<td>75</td>
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<tr>
<td>Self-critique of Interest Approach</td>
<td>Within 1 week</td>
<td>20</td>
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<tr>
<td>Self-critique of Peer Teaching #1</td>
<td>Within 1 week</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Self-critique of Peer Teaching #2</td>
<td>Within 1 week</td>
<td>20</td>
<td></td>
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<tr>
<td>Self-critique of Peer Teaching #3</td>
<td>Within 1 week</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Self-critique of Peer Teaching #4</td>
<td>Within 1 week</td>
<td>20</td>
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<tr>
<td>Quiz (may be unannounced)</td>
<td>TBD</td>
<td>25</td>
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<tr>
<td>Attend/participate IAAE-Purdue activity – IAAE-Purdue Callout</td>
<td>Within 1 week</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Attend/participate IAAE-Purdue activity</td>
<td>Within 1 week</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Attend/participate IAAE-Purdue activity</td>
<td>Within 1 week</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Attend/participate IAAE-Purdue activity</td>
<td>Within 1 week</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>TBD</td>
<td>100</td>
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</tbody>
</table>

Total Points 1100

A - 90% or higher of total points available; B - 80 – 89.9%; C - 70 – 79.9%; D - 60 - 69.9%; F - < 59.9%

PER PURDUE UNIVERSITY POLICY, YOU ARE EXPECTED TO ATTEND ALL CLASS SESSIONS. MORE THAN 3 ABSENCES WILL LOWER YOUR FINAL GRADE BY AT LEAST ONE LETTER. Graded work will be returned in class or alternatively may be picked up from the professor’s office up to 30 days into the next semester not counting summer session.
Using your TaskStream Program Code

You have been selected to participate in a TaskStream program. The program code that has been issued to you is intended for your use only. Follow the directions below to enroll yourself into a TaskStream program.

1. Go to www.taskstream.com and login to your TaskStream account.

2. Click the My Programs link from the Home Page or from the Left Menu Bar to access the My Programs area.

3. Click the Self-enrollment options link from the My Programs Home area.

4. Enter the program code specified below in the appropriate field and click the Search button.

   Program Code: 

5. You will be able to review the program information that corresponds to the code that you entered. To be enrolled in the program, click the Enroll button. If you do not wish to be enrolled in the program at this time, click the Do Not Enroll button.

   Note: If you enroll yourself into an inactive program, the program will not show up in your My Programs area until the Program Manager activates the program.
ANNOUNCEMENTS

I. Unit: Organization of Pedagogy and Content for Effective Learning

II. Lesson: Introduction to Lesson Planning

III. Objectives:

Upon completion of this lesson, students will be able to:

1. List 10 reasons for using lesson plans.
2. Determine the qualities needed in a good lesson plan.
3. Write objectives in behavioral terms.

IV. Questions to consider:

1. What are the components of a good lesson?
2. Why should an agricultural science and business teacher use written lesson plans?
3. What should be included in a good lesson plan?
4. How are behavioral student learning objectives written?


V. Laboratory activity.

Field trip to the TRC in BRNG 3287. Will meet in BRNG 3288. Reflective Teaching. Microteaching.
Cadillac Lesson Plan  
High School

Name:  
Date Last Revised:

Course Title: Horticultural Science

Unit: Horticultural Science (Horticulture Lesson Plan Library- Unit A)

Problem Area: Plant Propagation (Number 3)

Title of Lesson: Propagating Plants by Cuttings (Lesson 3)

Objectives: At the completion of this lesson, the students will be able to complete the following objectives with a score of 80% or higher, unless stated otherwise.

1. Define the following terms: asexual reproduction, parent plant, and rooting medium.
2. Discuss the reasons propagation is important.
3. Recognize the four different types of plant propagation
4. Label the anatomy of a leaf
5. Explain the difference between leaf cuttings and leaf-bud cuttings.
6. Demonstrate how to propagate using the leaf cutting technique.

Situation: This lesson is being taught to a group of students in grades 10-12. Before this lesson the students of this Floriculture class, were introduced to flower arranging. Before moving on we are switching to a few lessons on house and bedding plants so that they can start growing plants for a bedding sale. This is their second lesson in bedding and house plants. The first was sexual reproduction. It lasted two days. Class length is 55 minutes. The community is rural.

References and Teaching Aides:

1. Chalkboard, overhead projector, and computer projector.
2. PowerPoint on propagation: 
3. Propagation Study Guide. Need one copy per student on white paper.
4. Parts of a Leaf Handout and Transparency. Need one copy per student on white paper. Overhead transparency of Leaf Parts with the answers covered:  
   http://www.ydae.purdue.edu/download/undergrad/Leaf parts.png
5. Extension publication “New Plants from Cuttings”HO-37-W. Purdue University Cooperative Extension Service. Need one copy per student on white paper. 
   http://www.hort.purdue.edu/ext/HO-37graphics.pdf
7. A white t-shirt and scissors.
8. Plant samples for plant anatomy and propagation demonstration. Need one plant per group of 2-4 students (dependent upon class size).
9. Pots, rooting hormone, rooting medium, floral knives or scissors, labels, and markers. A set for each plant.
10. Various books and other resources for the students to research bedding plants.
11. Highlighters. One per student.
Documentation of Competencies and Academic Standards Met by This Lesson:

**Connection to SAE/Career Development:**
Careers related to Horticulture include, working in a greenhouse, a farm supply store, agronomic supply company, floral shop, and landscaping and design.

Proficiency areas related to Horticulture are Diversified Horticulture, Floriculture, Specialty Crop Production

**Connections to FFA/Leadership Development/Personal Growth:**
Floriculture CDE

**Literacy/Technology Components:**
Reading and following propagation instructions.

**Mathematics Concepts Taught:**
G.8.2 Decide whether a solution is reasonable in the context of the original situation.

**Science Concepts Taught:**
B.1.15 Understand and explain that, in biological systems, structure and function must be considered together.
B.1.16 Explain how higher levels of organization result from specific complexing and interactions of smaller units and that their maintenance requires a constant input of energy as well as new material.
B.1.18 Explain that the regulatory and behavioral responses of an organism to external stimuli occur in order to maintain both short- and long-term equilibrium.
B.1.21 Understand and explain that the information passed from parents to offspring is transmitted by means of genes which are coded in DNA molecules.

**Environmental Science Concepts Taught:**
C.1.7 Recognize and explain that in evolutionary change, the present arises from the materials of the past and in ways that can be explained, such as the formation of soil from rocks and dead organic matter.

**English Concepts Taught:**
10.1.1 Understand technical vocabulary in subject area reading.
12.5.6 Use varied and extended vocabulary, appropriate for specific forms and topics.

The academic standards for English, Environmental Science, Mathematics, and Science are found in the matrixes in the Indiana Agricultural Education Lesson Plan Library.

CDE, Proficiency Award, and Career information is on the Local Program Resource Guide CD-ROM.
Interest Approach: Ask students about a cool store in the mall, pretend a white T-shirt is a shirt from that mall. Ask ways to make more to sell. Cut the shirt into little shirts and ask if that is realistic. Show plant, ask for ways to make more to sell. Cut the plant ask if that is realistic. Lead the class into a discussion on propagation.

<table>
<thead>
<tr>
<th>Subject Matter Content</th>
<th>Teaching Learning Activities</th>
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</thead>
<tbody>
<tr>
<td>Begin by telling the students something about shopping at the mall. Mention an expensive store that is really “in”. Ask them if they like to go to that store, and if they would like a shirt from there. Go into some story about how you want to sell them but you were trying to come up with some way to get inventory. Ask for suggestions. Tell them your idea, cutting the shirt and letting it “mature” into other shirts. Ask if they feel it is realistic. Show them a cool, colorful plant i.e. rex begonia, polka-dot plant, etc. find students that like it and would like a plant of their own, once again ask for ideas on how to get more of that plant. Then go into your idea about cutting it and take cuttings and pass them out. Ask if they think that is realistic. You’ve just been introduced to propagation.</td>
<td></td>
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<tr>
<td>Start the PowerPoint. While the PowerPoint is warming up, hand out the Propagation Study guide. Explain that there will be quiz over this material.</td>
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</tbody>
</table>
| I. Asexual Reproduction:  
   A. Asexual reproduction in plants involves the reproduction of new plants using only the vegetative parts of the parent plant  
   “What is asexual reproduction? What does vegetative mean? What are some vegetative parts of the plant?”  
   B. Parent Plant  
      1. The plant that is used in asexual reproduction.  
   C. 4 Types of Propagation:  
      1. Leaf-Stem Cutting  
      2. Layering and Division  
      3. Tissue Culture  
      4. Grafting  
   “What is a parent plant?”  
   On the board so that everyone can see, write the words: Leaf-stem cutting, Layering and Division, Tissue Culture, and Grafting. |
Go to the next slide in the PowerPoint. Play the “Propagation Interrogation” and explain that it is a quiz game and ask for four volunteers. Explain to the class that you will ask them a question and they must use one of the words on the board to answer it. Then make sure that they see AND understand the pictures on the screen with their letters. Proceed with the following questions IN ORDER.

“Which of these use the cutting of a leaf and stem?”

“Which of these do you use when you want to divide a plant?”

“Which of these plants uses another part of a plant to grow?”

“Which technique requires a laboratory?”

Pass out prizes or warm fuzzies and then move on to the next slide. It will be blank. Let them know that we’re reviewing to make sure we caught it the first time. Then ask the following questions, again IN ORDER

“Which technique requires a lab and Petri dishes?”

“Which type relies on another part of the plant or another plant?”

“Which technique can you divide the plant and its roots into new plants?”

“Which type uses the leaf and/or stem to reproduce?”

In some way explain that when in doubt use leaf-stem cuttings for reproduction. Then ask them which one they think we are going to study the most.
D. Reasons why we should propagate:
1. It is sometimes faster than sexual reproduction.
2. It is a way to get identical offspring from the parent plant.
3. It is less expensive and more cost effective in some cases.

Go to next slide and ask the title question. “Why should we propagate?” Engage in discussion and debate on this topic, steering students towards these facts: It is less expensive, in some ways it is faster, and it is a way to get identical plants.

If desired this discussion could be summarized on the board by a student.

After some discussion bring out the fact that it is sometimes faster and click the mouse.

Discuss how orchids take a very long time to go from seed to flower, and you have to feed the seed in order for it to germinate.

Discuss the meaning of true to seed, and how propagation would solve that problem.

Discuss the interest approach and how you could take one parent plant and make several offspring.

The next two (2) slides just explain this further. At the end of the second of these slides, when you click it says “Let’s learn more.” STOP there.

II. Leaf Anatomy:
A. node
B. internode
C. blade/leaf
D. petiole

Switch to the overhead projector and put the transparency of Parts of a Leaf up. Make sure the parts are covered up and engage the students in a discussion on what parts are which. If they need direction, you could list some of the parts on the overhead to kick them into gear.

Review over the plant parts. When finished have a student pass out the Parts of a Leaf Handout, while you go back to the PowerPoint.

Have students get into groups of 2-4 depending on class size. Give each group a plant. Have them review with each other the leaf parts.
### III. Cuttings

**A. Leaf Cutting:**
1. When you cut the piece of a leaf blade or leaf blade with the petiole attached, to use for propagation.

**B. Leaf-Bud Cutting:**
1. When you use the leaf blade, the petiole, and a short piece of stem with an attached bud, for propagation.

Have each group look at their plants and decide where to take a leaf cutting, and where to take a leaf-bud cutting. Then go around the room and have them show you where that is. DO NOT cut the plants yet.

Go to next slide.

“What is maturity?”

“Why do you think it is important to use healthy plants?”

Take the rex begonia, or any other plant that is propagated by just their leaves and demonstrate to the students how to do it. If the class is larger, you may even want to use the overhead to put the leaf on it so that they can see the shadow.

Go to next slide and explain about the leaf-stem, leaf-bud cutting. Using a plant that requires that type of cutting demonstrate it.

Be sure to have a container with root medium already mixed up so that you can also demonstrate the proper way to “plant” the propagations. Put the cutting in the root hormone (if necessary) then place it in the medium. Once it has gotten dirty, pass it around the room so that the students can get a visual on where the roots will grow.

### IV. Water/Moisture:

Without roots the cutting must be in direct contact with its nutrients. It is important to keep it moist.

At the bottom of this slide it explains the importance of water. Have the students talk about what plants need to live and how they get these nutrients (roots). Ask if they don’t have roots how are they going to get any nutrients. (must be in direct contact with them) All of this gets to the importance of moisture.

Pass out the two (2) extension hand outs (HO-37-W and HO37graphics-W)

Give them a moment to look over the handouts. This gives you time to
<table>
<thead>
<tr>
<th>V. <strong>Processing the Cutting:</strong></th>
<th>Get them to realize how much work leaves of a plant do and create for the plant. Transition into processing the cutting.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Do this immediately. If not possible, put the cutting in water and store out of direct sunlight.</td>
<td>Go to next slide and discuss processing then the next slide to discuss rooting medium. Go over rooting mediums and then the last slide is going to the greenhouse to practice the cuttings.</td>
</tr>
<tr>
<td>B. Remove most of the leaves. Rule of thumb is about 1/2-2/3 the number of leaves. If the remaining leaves that are left are large. Cut them in half.</td>
<td>In the greenhouse, keep the students in their groups. Have them propagate and transplant their cuttings to the medium</td>
</tr>
<tr>
<td>C. Place it in rooting medium, enclose the pot in a plastic bag.</td>
<td></td>
</tr>
<tr>
<td>D. Place the cutting in the greenhouse out of direct sunlight.</td>
<td></td>
</tr>
</tbody>
</table>

**Summary:** After discussing the different cutting techniques and the students applying what they have learned through their hands-on laboratory experience, the students will use the “**Jeopardy e-Moments**” activity to review the lesson. Students will write facts from their study guides and other reference materials on 3”x5” cards for each of the following categories, “Leaf-Stem, Layering, Grafting, and Tissue Culture”. On the back of the cards they will write appropriate questions for the facts they created. The cards will be gathered, duplicates removed and an explanation of how the game will be played will be given. The following PowerPoint: [http://www.ydae.purdue.edu/download/undergrad/powerpoint/jeopardy1.ppt](http://www.ydae.purdue.edu/download/undergrad/powerpoint/jeopardy1.ppt) can be used for playing the game but the information from the cards will need to be added to each slide. Divide the students into teams and enjoy the game. Observations will be made on a regular basis on the cuttings being grown in the greenhouse.

**Evaluation:** Students will be graded on their ability to correctly perform the different cuttings. There will also be an exam covering the objectives of the lesson. The exam will include true false, multiple choice, matching and a couple of essay questions.
I. Asexual Reproduction

A. What is Asexual Reproduction?

B. 4 types of propagation:
   a. _________________________________________
   b. _________________________________________
   c. _________________________________________
   d. _________________________________________

C. Two reasons why asexual propagation may be better than sexual propagation.
   a. ____________________________________________________________
      ____________________________________________________________
   b. ____________________________________________________________
      ____________________________________________________________

II. Cuttings

A. Difference between a Leaf Cutting and a Leaf Bud Cutting?
   a. ____________________________________________________________
      ____________________________________________________________
B. 3 Types of Cuttings:
   a. __________________________________________________________
   b. __________________________________________________________
   c. __________________________________________________________

C. Decreasing water loss:
   a. __________________________________________________________
   b. __________________________________________________________
   c. __________________________________________________________

D. Encouraging root formation:
   a. __________________________________________________________
   b. __________________________________________________________

NOTES:
Cadillac Lesson Plan
Middle School

Name:          Date Last Revised:  

Course Title:  8th Grade Agriculture

Unit: Animal Science and the Industry
   (Animal, Plant and Soil Science Lesson Plan Library-Unit B)

Problem Area: Understanding the Animal Science Industry (Problem Area 1)

Title of the Lesson: Discovering Ways Animals Help People (Lesson 2)

Objectives: At the end of this lesson, the students should be able to achieve the following objectives:
   1. List ways animals provide food for people
   2. Describe how animals provide clothing for people
   3. Identify other ways that animals help people
   4. Define the assigned vocabulary words

Situation: This lesson is an introductory lesson on discovering different ways of how animals help people. I will be teaching this lesson to 8th graders. All of the 8th graders will have an agriculture class for 9 weeks. The class will last approximately 55 minutes.

References and Teaching Aides:

1. Chalkboard, chalk, and eraser
2. Overhead project, overhead markers
3. Markers, colored pencils, or crayons
4. Construction paper
6. How Animals Provide Food for People Transparency (TM:B1-2A)
7. Ways Animals Help People Exam
8. Stuffed Dog
9. Stuffed Sheep

Documentation of Competencies and Academic Standards Met by This Lesson:

Connection to SAE/Career Development: This lesson could connect to SAE’s that deal with any types of animals. Students who work in both small and large veterinary offices could benefit from this lesson. Also SAE’s that are about small animal care or companion animals would connect to the lesson.

Connection to FFA/Leadership Development/Personal Growth: Demonstrations dealing with animals or community service projects
**United States Government Concepts Taught:**
USG 4.14: Examine the effects of developments in other nations on state and community life in Indiana, and explain the role of individual citizens in world affairs. (Individuals, Society, and Culture)

**Agricultural Concepts Taught:**
AS.F 2: Discuss how jobs related to the animal industry have changed over the past one hundred years. Address how scientific advancements have impacted the agricultural job market.

AS.F 3: Predict a scenario for animal industry jobs in the future. Discuss how worldwide population growth will influence plant versus animal food production.

**Interest Approach:** Start off by asking students to name what the two types of stuffed animals are. Then ask the class how many of them have sheep or a dog at home. Then ask if anyone knows of ways that the sheep can help people. After the students answer lead the discussion into how sheep provide food through their meat. Sheep can also help people by providing wool for clothing. Then ask the class how a dog such as the stuffed animal could help people. After listening to the various examples, lead the discussion into how dogs can guard property, herd animals, serve as a companion, or lead the visually impaired. Tell the class that there are many different ways that animals affect our daily lives and that some people might not even know how!

<table>
<thead>
<tr>
<th>Subject Matter Content</th>
<th>Teaching Learning Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask the students to name what type of animals the stuffed animals are. Answer: Sheep and dog</td>
<td></td>
</tr>
<tr>
<td>How many of you have dogs at home?</td>
<td></td>
</tr>
<tr>
<td>Raise your hand if you have sheep at home.</td>
<td></td>
</tr>
<tr>
<td>Does anyone know of ways that sheep can help people? After listening to answers, lead the discussion into how sheep provide food through their meat and help in providing clothing through their wool.</td>
<td></td>
</tr>
<tr>
<td>How do you think a dog can help people? After listening to answers, lead the discussion into how some dogs are used to guard property, herd animals, lead visually impaired or blind people or just serve as companion animals.</td>
<td></td>
</tr>
<tr>
<td>There are many different ways that animals affect our daily lives and that some people might not even know how!</td>
<td></td>
</tr>
<tr>
<td>Pass out sheets of construction paper to</td>
<td></td>
</tr>
</tbody>
</table>
each student. Also have markers, crayons, or colored pencils set out throughout the room. Explain to the class that animals are important in each of our lives; some of us might not even know how animals effect our ways of life. Then have the students take the paper that was handed out and with the paper horizontal fold it in half. Tell the students that each of them is going to create a book about Discovering Ways Animals Help People. They can keep any notes or pictures from the lesson in the booklet that would be helpful when preparing for quizzes or tests over the material. The booklets will be checked periodically throughout the lesson to make sure that only material about the lesson is included. The booklets will be worth 20 points.

Then explain to the students that they will have 3 minutes to make a cover for their book that will need to include a title and author. Also have the students number the pages of their books.

I. Ways Animals Provide Food for People
   A. Foods that animals provide are high in nutrients & help people live healthy lives.
   B. Foods from animals are generally meat, milk and eggs. Some animals can provide two food products.

Cover Slide
Can anyone name an animal that provides food for humans? There are many different types of animals that provide food for people such as you and me. These types of foods provide us with nutrients that we need to live a healthy life.

What are the 3 types of foods that animals provide for food? We talked about how animals can provide food for people, but do you know of any animals that provide more than one type of food for people? An example of this would be a chicken. Chickens provide both eggs and meat for food.

There are four different types of animals
1. **Meat Animal**
   - Animal raised especially for its meat
      - a. Some animals raised for meat are cattle, fish, turkeys, chickens, swine & sheep
      - b. Horses used for meat in some countries
      - c. Can come from animals raised on farms, ranches, or be wild animals
   Slide #1 Meat Animal
   The first type of animal is raised especially for their meat. These animals are called meat animals. What types of animals are raised especially for their meat? Choral Response: Meat Animals
   - Turn on overhead projector. Have the students interact by listing the animals that are raised for their meat. What are some of the animals raised for their meat?
   - Possible Answers: Pigs, sheep, cow, deer, rabbit, fish, chickens, turkeys, goats—horses are sometimes eaten for meat in some countries
   - Then explain that the animals listed can live on farms, ranches, or they could be wild animals.

2. **Dairy Cattle**
   - Cattle specially grown to produce milk
      - a. Goats and other animals are sometimes used for milk
   Slide #2 Dairy Cattle
   Next, are dairy cattle. Dairy cattle are grown specifically to produce milk. Use choral response to ask what dairy cattle produce. Ask students to raise their hands if they like milk.
   - Explain that some other animals like goats are also used for milk. Has anyone ever drunk goat’s milk? If so, did the goat’s milk taste any different?
   - Raise your hand if you enjoy eating eggs?

3. **Eggs**
   - a. Primarily from chickens
   - b. Guineaas & ducks are a few other animals that produce eggs for human food
   - c. Some people like caviar, which are fish eggs
   Slide #3 Eggs & Wild Animals
   Call on a few of the students and ask if the eggs that they like were from chickens. Then explain to the class that primarily eggs do come from chickens but there are a few ducks and guineas that produce eggs that humans can eat.
   - Has anyone heard of the word caviar? Can anyone share with the class what they think caviar is? Caviar is eggs from
4. Wild animals
   a. livestock not included
   b. wild animals used for food include deer, rabbit, quail & fish
   c. game is wildlife hunted for food or other uses

<table>
<thead>
<tr>
<th>II. Ways Animals Provide Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Livestock provides fiber &amp; skins for production of clothing</td>
</tr>
<tr>
<td>B. Clothing made from different by-products</td>
</tr>
<tr>
<td>1. By-product→a product made from the parts of the animal that are not used for food</td>
</tr>
<tr>
<td>2. Demand for animal fibers for clothing has decreased because of increase use of synthetic fibers for clothing</td>
</tr>
<tr>
<td>C. Some animals raised specifically for</td>
</tr>
</tbody>
</table>

fish that can be eaten.

The last type of animal that provide food for humans are wild animals. Wild animals are animals that live in the wild and have to search for their own food. Wild animals do not include livestock.

Turn overhead projector on and write down animals that students list if they are classified as wild. Can anyone list wild animals used for food?

Possible Answers:
   Deer, rabbit, quail, fish

Explain that wildlife that is hunted for food or other uses is known as game.

Turn on overhead projector and put up the transparency about How Animals Provide Food for People (TM:B1-2A). Use the transparency to review the different types of food that animals provide. Ask students to list some of the meat animals that we discussed. Then show the students that depending on the age of the animal that the name of the food that it provides can vary.

Did you know that animals help to provide clothes that we wear? What do you think is used from animals to help produce clothing?

Animals provide both fiber and skin which help produce clothing.

The clothing that people wear is made from different by-products. Give the class the definition of by-product.

Slide #4

Explain how the demand for animal fibers has decreased over the years as the use of synthetic fibers has increased.

Then tell the class that just like dairy cattle being raised for their milk and meat animals for their meat, there are
products to make clothing

1. mink are most commonly used for their fur
2. certain breeds of sheep used mainly for wool
   a. some fibers have decreased in demand, but wool has stayed constant over past 10 years.
3. special quality cloth is known as Mohair

D. Clothing may also be produced from animal skin (hide) or hair
   1. prepared skin of animals $\rightarrow$ leather
   2. 5 to 10% market value of animals comes from sales of hides
   3. bones, antlers, & other animal parts may also be used for products

<table>
<thead>
<tr>
<th>IV. Ways Animals Help People</th>
<th>What are some ways that you think that animals can help people?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Some functions of livestock benefit all of society while others mainly benefit individual farms. Both are vital parts of the total agricultural industry of the nation.</td>
<td>At the beginning of the lesson we talked about how animals help benefit everyone but some of us may not even know it. Some livestock might benefit the entire society while others are just beneficial for individuals.</td>
</tr>
<tr>
<td>B. Companionship &amp; Pleasure</td>
<td>What are ways animals could offer companionship or pleasure to humans?</td>
</tr>
<tr>
<td>1. Companion animals provide</td>
<td>Slide #6 Companionship &amp; Pleasure</td>
</tr>
</tbody>
</table>
benefits that help people enjoy life.

a. common examples: dogs, cats, ornamental fish

2. Some animals are used for sporting events

a. Horseback riding is a major source for recreation & pleasure

C. Service Animals

1. Animals that assist people in living and work

2. Used in many ways and may be given special training

a. dogs used to lead visually impaired, herd sheep, or guard property

b. some used in laboratories for finding new medicines to cure human diseases

c. police use dogs for canine units to help in fighting crime

How many of you have pets at home? What kind of pets do you have? Choose a student and ask if when they get home their dog is happy to see them? Does that put a smile on your face? People often times have dogs, cats or even fish as something that will help bring joy to their lives. Pets or companion animals even become parts of people’s families.

Does anyone know of a type of sporting event where animals are used? A few examples would be dog sledding, dog racing, or horse racing.

Has anyone ever been horseback riding before? If so, where? Horseback riding is a major source of recreation and also pleasure. At state parks often times there are horses that you can rent out and then go trail riding throughout the park on. Horseback riding could be relaxing to a lot of people.

Back before farmers had tractors, what did they use to pull the plows? Farmers used animals such as horses or ox to pull their plows through the fields. Animals can assist people not only in work but also living.

Slide #7 Service Animals
Can anyone think of animals that have been given special training to do specific jobs?

Some dogs are trained to be seeing eye dogs for blind people. Other dogs could be used on farms to herd animals for farmers. And some people have dogs to guard their property against intruders.

Often time’s dogs are used in labs to help find new medicines that can be used to help in curing a human disease.

How can dogs be used to fight crime?
### D. Conservation

1. Livestock help conserve soil and soil fertility.

2. Crops then are fed to livestock and close to 80% of nutrient value excreted in manure—manure then is put back on soil which helps decrease rate of loss of soil fertility.

### E. Stabilize Farm Economy

1. Raising livestock helps to make good use of resources already available to farmers.

2. Can help increase farming income

3. Helps to spread risks involved in farming over more areas or enterprises

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**Police dogs are sometimes brought into schools to conduct drug searches or they could be used to help find missing people.**

**Slide # 8 Conservation & Stabilize Farm Economy**

**What are ways that livestock animals that people have on their farms can help to conserve soil and soil fertility? Does anyone in the class have pigs at home? What does your family do with the manure from the pigs? My uncle, who is a hog farmer, sometimes takes the manure from his hogs and spreads it across his fields. This is one way of putting nutrients back into the soil.**

**We talked about how my uncle spreads manure on his field to put nutrients back into the soil. This is an example of how he is stabilizing the farm economy. By raising livestock and then utilizing the manure to increase nutrients, he is making use of resources that he already has.**

**By doing this, he is helping to reduce the amount of expenses he has which in turn means he will make more profit.**

---

**Summary:** The day before the test, time will be spent reviewing the material and answering any questions the students might have. During this lesson, students used the “Crayon E-Moment” to make their own books on Ways that Animals Help People. This book will serve as a study guide for the students when they are preparing for the evaluation.

**Evaluation:** Throughout this lesson the students were required to make a booklet about the material. At different times during the lesson, periodic checks were made of the booklets for only the material that was being studied. The booklet project is worth 20 points and the students will be required to turn it in when they hand in their exams. The exam that is attached will be given at the conclusion of the lesson to see if the students understand all of the objectives of the lesson. The exam will be multiple choice and matching questions.
### HOW ANIMALS PROVIDE FOOD FOR PEOPLE

<table>
<thead>
<tr>
<th>Animal</th>
<th>Food Item Name*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meat</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Cattle</strong></td>
<td>Veal&lt;br&gt;Beef</td>
</tr>
<tr>
<td>Younger than 3 months&lt;br&gt;Older animals</td>
<td>Veal&lt;br&gt;Beef</td>
</tr>
<tr>
<td><strong>Swine (hogs)</strong></td>
<td>Pork</td>
</tr>
<tr>
<td><strong>Sheep</strong></td>
<td>Lamb&lt;br&gt;Mutton</td>
</tr>
<tr>
<td>Young (less than 1 year)&lt;br&gt;Older (older than 1 year)</td>
<td>Lamb&lt;br&gt;Mutton</td>
</tr>
<tr>
<td><strong>Goat</strong></td>
<td>Goat Mutton</td>
</tr>
<tr>
<td><strong>Chicken</strong></td>
<td>Broiler&lt;br&gt;Capon&lt;br&gt;Hen</td>
</tr>
<tr>
<td>Young (less than 12 weeks)&lt;br&gt;Neutered young male&lt;br&gt;Old hen</td>
<td>Broiler&lt;br&gt;Capon&lt;br&gt;Hen</td>
</tr>
<tr>
<td><strong>Turkey</strong></td>
<td>Turkey</td>
</tr>
<tr>
<td><strong>Fish</strong></td>
<td>Fish</td>
</tr>
<tr>
<td><strong>Milk</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Dairy cattle</strong></td>
<td>Milk</td>
</tr>
<tr>
<td><strong>Goats</strong></td>
<td>Goat’s milk</td>
</tr>
<tr>
<td><strong>Eggs</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chickens</strong></td>
<td>Eggs</td>
</tr>
<tr>
<td><strong>Fish</strong></td>
<td>Caviar</td>
</tr>
</tbody>
</table>

*Variety meat is the general name for food made from organs and glands of different meat animals. Potted meat animals and Vienna sausage are examples.
Guide for Preparing a Cadillac Lesson Plan

Course
May includes one or more major areas of instruction, usually on a yearly or semester basis. The Indiana Agricultural Science Curriculum Lesson Plan Library CD contains all the needed information on the 11 approved courses for agricultural science and business.

Unit
Is the title for a grouping of related Problem Areas and Lessons that should be taught together. Can also be called a Module. Be sure to not only list the name of the Unit but also include where the Unit can be found, and its alphabetical letter. In the Indiana Agricultural Science Curriculum Lesson Plan Library CD, Units are designated by capital letters (i.e, Unit A).

Problem Area
Is the title for a grouping of related Lessons on a specific topic. There will usually be more than one lesson under each Problem Area. List the name of the Problem Area and its identification number (i.e, Number 3).

Title of Lesson
Is the division of teaching-learning activities included in a Problem Area. Each lesson is aimed at helping learners develop a portion of the understandings, attitudes and skills that lead to objectives/outcomes for the Problem Area and eventually the Unit. Separately, lessons are fragmentary in that each is dependent upon the others in the Problem Area to accomplish the desired outcomes. A lesson covers at least one class period. It may require several class periods to complete. List the name of the Lesson. In the Indiana Agricultural Science Curriculum Lesson Plan Library CD lessons are found under each Problem Area. Lesson titles must show action or activity.

Objectives
State or list the major objectives of Instruction planned for the specific lesson under the Problem Area. Be specific. Avoid being too general in formulating objectives. Carefully consider student needs. Do not state what the teacher plans to do. Rather, list the outcomes (changes in behavior) expected of students. Remember, objectives should be measurable and attainable. They also should require various levels of student activity. Objectives can come from the Student Learning Objectives listed under the specific Lesson and specific Problem Area found in the Indiana Agricultural Science Curriculum Lesson Plan Library CD. You are encouraged to include additional objectives you would like for your students to achieve.

Situation
Explain, with some detail, who the students are that will be receiving the instruction. You should also include additional information on the lessons they have covered prior to and what may be covered after this lesson is taught.

References and Teaching Aids
List the major sources to be consulted in developing the objectives of the lesson. Keep in mind that visual aids, experience activities, references and other materials are all to be listed as they relate to the lesson under consideration. List the source, including page numbers, of the materials.
Documentation of Competencies and Academic Standards Met by This Lesson

Document the careers related to the lesson. This can be obtained from the National FFA Website at http://www.ffa.org/collegiate.cfm?method=c_job.CareerSearch. The proficiency areas documented can be obtained at http://www.ffa.org/programs/proficiency/. Career Development Events (CDEs) are located at http://www.ffa.org/programs/cde/index.html.

To document the Indiana Academic Standards covered by the lesson plan visit the Center for Agricultural and Environmental Research and Training (CAERT) website: http://www.caert.net. Go to State Curriculums hotlink and select Indiana. Your password is “INCORE”. From this site you may select the appropriate Curriculum Matrix for your lesson plan and it will provide you with the specific Indiana Academic Standards that lesson will meet. You can find all the Indiana Academic standards at http://ideanet.doe.state.in.us/standards/welcome.html. You may also find the appropriate Curriculum Matrix on the Indiana Agricultural Science Curriculum Lesson Plan Library CD.

Interest Approach

Explain the technique you plan to use in securing student interest in the lesson. The Technique should be interesting and grab the attention of the students. It should be explained in detail under the Teaching and Learning Activities column. If necessary information from the Interest Approach could be included under Subject Matter Content.

Subject Matter Content

Develop a listing of information in sufficient detail to enable the teacher to guide the students in achieving the stated objectives of the lesson. The listings may vary from lesson to lesson. This section should be complete enough so that someone else could teach using your lesson plan. It is also your safety outlet. If you forget some information while teaching, it should be located here. Lesson plans are to be used. This is the "meat" of your lesson plan. Putting your Subject Matter content in outline form will help with your presenting and discussing the information with your students.

Teaching-Learning Activities

The heart of any instructional program is the sequence of teaching-learning activities. There is no one best procedure. The sequence of activities will vary from teacher to teacher and even from year to year for the same teacher. However, the importance of planning an approach to the lesson under study cannot be over-emphasized. Regardless of how well acquainted a teacher may be with the subject matter of the lesson involved, the teacher will find it necessary to plan an approach. The teacher will want to consider (1) where their learners are and (2) where they want to guide them. With these thoughts in mind, plan a sequence of learning activities. Well-informed teachers tend to dominate class activities. Center your sequence of activities around your students. Involve them in activities that leave them with a sense of individual accomplishment that inspires them to dig deeper and deeper for the facts, understanding, insights, etc., which lead to the objectives of the lesson and unit. Arrange opportunities for students to test their ideas and be commended for their achievements and informed of their mistakes. It is wise to write lead questions in this section. Stimulus variation should be built into the lesson at proper time intervals. A variety of teaching techniques and learning activities should be used throughout the lesson.
Summary
Explain how you plan to utilize an E-Moment to summarize the key points in the lesson. Relate the E-Moment to lesson objectives. You may not use the E-Moment that has been used in the YDAE 440 Course Packet. E-Moments are available from the following website: http://www.ydae.purdue.edu/download/undergrad/pdf/eMoments.pdf. E-Moments may also be used during the lesson to help students learn, comprehend, recall, and transfer information from the subject matter taught.

Evaluation
Describe how the teacher plans to evaluate the lesson. The evaluation should relate to the objectives. Remember that evaluation can include traditional tests/quizzes (be specific), task performance, written/oral reports, and other methods depending on the lesson objectives and purposes of the evaluation.
A LESSON PLAN GUIDE*

Purposes:  
What am I trying to do?  
What would my pupil's related purposes be?

Materials:  
What materials will help me to achieve my purposes?  
A.  Materials for my own preparation and use?  
B.  Materials for pupil use?

Methods:  
What techniques seem most suitable for using these methods to achieve my purposes?  
A. Lecture    B. Demonstration    C. Supervised Study  
D. Recitation    E. Committee work    F. Audio-Visual

Getting Started:  
How will I get started with the class?  
A.  Relate activities to the past and/or future.  
B.  Show the "Why" of the activity to pupils if not apparent to them and genuinely accepted by them.  
C.  Provision for routine matters, as attendance checks, so as not to interfere with opening learning activity.

Changing Pace:  
How will I change pace from one activity to another without confusion and disorder?  
How will I decide on on-the-spot when the time is ripe for such changes?

Concluding the Lesson:  
How will I bring the lesson to a fitting close?  
What required or suggested assignments will I make to the students, looking forward to the next day's activities?  
What will I do with a few minutes of extra time if we finish our work before the end of the period?

Special Items:  
A.  Routine matters:  Have I provided for them?  
B.  Motivation:  What problems will I meet?  How will I meet them?  
C.  Discipline:  What positive forms of behavior control can I employ?  
D.  Individual differences:  How, specifically, can I provide for them in my lesson plan?  
E.  Evaluating and grading:  What tests, or other form of evaluation should I use to check on what I have actually taught?

*Prepared by the Department of Agricultural Education - South Dakota State University.
Selected Action Verbs Appropriate to the Domains of the Taxonomy

<table>
<thead>
<tr>
<th>COGNITIVE</th>
<th>AFFECTIVE</th>
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<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td><strong>Comprehensive</strong></td>
</tr>
<tr>
<td>acquire</td>
<td>associate</td>
</tr>
<tr>
<td>count</td>
<td>classify</td>
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<tr>
<td>define</td>
<td>compare</td>
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<td>draw</td>
<td>compute</td>
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<td>identify</td>
<td>contrast</td>
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<td>indicate</td>
<td>describe</td>
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<td>label</td>
<td>differentiate</td>
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<td>list</td>
<td>discuss</td>
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<td>read</td>
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<td>recall</td>
<td>translate</td>
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<td>repeat</td>
<td>state</td>
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<td>Synthesis</td>
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Selected Action Verbs Appropriate to the Domains of the Taxonomy

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**Characterization**

act
avoid
change
complete
display
rated high by peers
require
resist
resolve
revise
serve
solve
superiors, or
subordinate
verify
Sample Unit Lesson Plan for Grade 9

LEADERSHIP – JUMP THE FENCE!!

Agricultural Education

Purdue University
Unit: Leadership Skills. (Fundamentals of Agricultural Science and Business – Unit B)

**Problem Area:** Students shall acquire and practice leadership skills.

**Student Learning Objectives:**

1. Summarize the characteristics of a leader.
2. Explain the significance of effective leadership in agriculture.
3. Describe the diverse opportunities for developing leadership skills in FFA.
4. Acquire, or refine previously acquired, communication skills such as writing, public speaking, and listening.
5. Demonstrate expertise in the areas of leadership, employability, communications and human relations.
6. Discuss the role of the FFA in the development of leadership, education, employability, communications and human relations skills.
7. Understand the process of setting goals and develop a comprehensive set of attainable goals.
8. Exhibit proficiency in the proper usage of parliamentary procedure.

**Situation:** This lesson is being taught to 9th grade students in a Fundamentals class. Class is taught in block periods. Before this lesson, the students had a unit on animal science. The community is a suburban one.

**Problems and Questions for Study:**

1. Define leader and leadership
2. Why is there a need for effective leadership in agriculture and the FFA?
3. What are some characteristics of good leaders?
4. What kinds of opportunities exist for the development of leadership skills in the FFA?
5. How does the FFA help in the development of leadership, education, employability, communication, and human relation skills?
6. What part does goal setting play in leadership?
7. What is parliamentary procedure and why is it important?

**Reference & Teaching Aids**

- FFA Manual &/or Handbooks
- 7 Habits of Highly Effective People
- Cards with Animal Species
- State & District Contest Regulations
- Chalkboard & chalk
- 3X5cards
- FFA opportunity list
Documentation of Competencies and Academic Standards Met by This Lesson:

**Connection to SAE/Career Development:**
Careers related to Leadership include teacher, agricultural extension agent, field sales representative.

Proficiency areas related to Leadership include Agricultural Communications, Agricultural Sales.

**Connection to FFA/Leadership Development/Personal Growth:**

Discovery FFA Degree, Greenhand Degree.

**Literacy/Technology Components:**
Reading and following instructions.

**Mathematics Concepts Taught:**
None.

**Science Concepts Taught:**
None.

**English Concepts Taught:**
9th Grade Standard 1 - READING: Word Recognition, Fluency, and Vocabulary Development.
9th Grade Standard 2 - READING: Reading Comprehension (Focus on Informational Materials).
## General Outline of Unit Plan

<table>
<thead>
<tr>
<th>State Student</th>
<th>Lessons &amp; Included Educational Material Involved</th>
<th>Time</th>
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<td>Learning Objectives</td>
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### Leadership

1. Definition of Leadership & Other Terms 1 day
2. Why is Leadership Needed in Agriculture 2 days
2. Why is Leadership Needed in FFA
1. What are the Characteristics of a Leader

#### Opportunities & Goals

7. Goal Setting 1 day
3. Opportunities for Developing Skills in FFA 1 day
5, 6. How the FFA Develops
- Leadership
- Education
- Employability
- Communications
- Human Relations Skills

#### Parliamentary Procedure:

9. How to Run an Efficient, Productive Meeting 5 days

### Evaluation

Choice of written or oral evaluation.
- Written consists of an essay & short answer exam. Vocabulary words to be defined in their own words.
- Oral consists of class participation.
- All students take same form of exam.
- All students will compete in a classroom leadership contest event.

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35
Motivation

Each Student draws a card with an animal species on it. Tell students not to tell anyone else what animal they have…it will ruin the game. Have each student remember what animal they have and turn the card back into the instructor. No one in the room is allowed to say anything, write anything, or make any body language or signals to the others.

Okay! Go!!!

How's it going? Are you doing okay? Are there any problems with this game?

Oh!!! You don't know what to do? So, you would like a little direction, guidance, and a goal, to work toward? (Write 'goal' on the board) Should I educate you on the rules of the game? ('educate' on the board)

Without speaking or signaling to anyone, I want you all to get into alphabetical order by the name of your animal species. (NO TALKING)

How are you doing? Does anyone have any questions for me?

Oh, so you think this would be easier to reach this goal if you could communicate in some way? ('communicate')

Okay, let's continue - you still can't talk, but you can use some non-verbal signals. Work with students until they achieve this goal. Let everyone return to his or her seats.

When students finish game let them talk about the experience and get their feelings on how things went. Explain that goals, Agricultural education, communication and leadership are just a few of the topics that we will cover in the next few days. How to Lead - How to Succeed!!

Let's get started with Leadership.
(10 minutes)
Ask for 4 volunteers. Give each member a card that states, "Stand in a circle facing the middle of the circle and wait for the member with the directions to lead the rest of you.

Let students stand there for around 30 seconds and then ask them what they are doing? Then slap forehead and realize you forgot to give one of them the instruction card. Have the students take their seats. Ask them what happened. Ask them what was missing. Guide them to the answer of a leader. (5 minutes)

**Teaching & Learning Activities**

Worksheet & answers (15 minutes)
Class Discussion (55 minutes)
• Role-play types of leaders. (Either instructor or students)
• Let students use textbooks to look up answers. - give page numbers

Take turns letting students who volunteer write the notes on the board.

Pass out glossary worksheet of leadership terms. There will be blanks where the terms go. Write terms on board and give students some time to fill out the answers in pencil. Provide pencils if necessary. Let students work together if they like.

Have students take turns giving the correct answers. This should provide relatively easy since they could work together.

• Ask students what happens when no one in a group chooses to take the leadership role. Write answers on the board.
• Ask students what roles a leader may take. Write answers on the board.
• Ask students how many types of leaders there are. What are they? Write answers on the board.
• Give students the three types of leadership styles - listed on pages 484-485
• Ask students to guess at the definitions of these types.
• Ask students to give examples of these.
• Role-play these types of leaders. (Either instructor or students) (10-15 minutes)

• Ask students why we need leadership in Agriculture. Write reasons on Board
• Ask students to list some Agricultural leaders - either titles or names. (5-10 minutes)

• Ask students why we need leadership in FFA. Write reasons on Board.
• Ask students what the FFA leadership roles consist of. List on board
• Ask students who in a meeting needs to use leadership skills. Wait for correct answer...EVERYONE... Write it on the board in large letters.
(5-10 minutes)

• Ask students to list some characteristics of a good leader. List on board
  o Organized
  o Time Efficient
  o Use table on page 483
  o Describe each trait as it is mentioned (10 minutes)

Ask students to review what we have gone over during this class period. (5 minutes)

Give an outline of what to expect in tomorrow's class. (5-10 Minutes)

**Subject Matter Content**

State, District, and Greenhand Leadership Contest Rules Handouts
INFORMATION SHEET #1

Terms to be Defined

**Leadership** - capacity or ability to lead

**Lead** - to show the way by going in advance or to guide the action or opinion of; to direct the operations, activity or performance of.

**Plan** - to think through, determine procedure, assemble materials, and train others to do a job.

**Manage** - to use people, resources and processes to reach a goal.

**Citizenship** - functioning in society in a positive way.

**Integrity** - honesty.

**Knowledge** - familiarity, awareness, and understanding.

**Courage** - willingness to process under different conditions.

**Tact** - skill of encouraging others in positive ways.

**Enthusiasm** - energy to do a job and inspiration to encourage others

**Unselfishness** - placing the desires and welfare of others above yourself.

**Loyalty** - reliable support for an individual, group or cause.

**Cooperative Extension Service** - educational agency of USDA and an arm of state universities. Provides educational programs for youth and adults such as personal, home and family, community and agriscience resources development. Also, sponsors and directs 4-H clubs.

**FFA** - a youth organization developed specifically to expand the opportunities in leadership and organizational skill development for students enrolled in agricultural education.

**Extemporaneous** - composed and performed on the spur of the moment.

**Parliamentary Procedure** - system of guidelines or rules for conducting meetings.
Course: Fundamentals of Agricultural Science & Business
Unit: Leadership Skills
Problem Area: Opportunity & Goals
Motivation:

Bring in a copy of Alice in Wonderland. Read the excerpt from Alice meeting the Cheshire cat and asking for directions. "Which way shall I go?" asked Alice. "That depends a good deal on where you want to get to." Replied the cat. "I don't much care where." Said Alice. "Then it doesn't matter which way you go." Replied the cat.

Ask the students what this means and discuss the concept of goals as an intro to lesson. (10 minutes)

Teaching & Learning Activities

- Interactive Lecture - Explain the concept of goals (10 minutes)
- Hand out 3X5 cards and have students place one Long-term goal (longer than 1 year to achieve) at the top and 3-5 short term, stepping stone, goals (less than 1 year to assist them in achieving the first goal. (15 minutes)
- Interactive lecture - What skills and how do we develop them? (10 minutes)
- Research by students - hand out handbooks and manuals and have each student look up three different leadership contests and decide which one he/she would most like to compete in. Students may work together. (15 minutes)
- Announce Assignment - develop leadership contest entry - hand out instructions (5 minutes)
- Interactive Lecture - FFA Opportunities (15 minutes)
- Review of days learned materials (5 minutes)

Quick outline of day’s events

- Ask class to define the term goal
- Ask class if goals are important. Why?
- Have students complete 3X5 cards
- Ask students what skills are. Ask students why skills are important.
- Ask students how FFA develops these skills. How will you use these skills in the 'Real World'
- Ask students to define:
  - Leadership - easy we defined it yesterday
  - Education
  - Employability
  - Communications
  - Human Relations Skills
- How will development of these areas assist them when they leave high school?
- How do they think FFA attempts to strengthen these areas?

Review what we've learned today.

Subject Matter Content
7 Habits of Highly effective people
FFA opportunity list
Course: Fundamentals of Agricultural Science & Business
Unit: Leadership Skills

Problem Area: Parliamentary Procedure

Motivation:

Four chairs - pull out exercise - show not everything is not done as an individual. Sometimes we need to rely on a team to get things done. (10 minutes - including discussion of activity and day's outline)

Teaching & Learning Activities

- Demonstration of Parli Pro by chapter members. (30 minutes)
- Discussion of the main components of Parli Pro (15 minutes)
- Draw for classroom officers (2 sets) (5 minutes)
- Begin practical practice of opening ceremonies (20 minutes)
- Review and Look at next day's schedule (5 minutes)
- Practical practice of Parli Pro (3 Class periods)
- Parli Pro skills assessment (1 Class period)

Quick outline of day’s activities

- Hand out study materials (handouts with parli info on them)
- Discuss concept of why we use Parli Pro
- Set up meeting room
- Let the chapter members give their prepared demonstration of Parli Pro
- Read over opening ceremonies twice. (Once for each set of officers)
- Begin practical practice

Subject Matter Content

Handouts
Roberts rules of order
Reflective Teaching: A Laboratory Teaching Experience

A laboratory is a place for experimentation where new knowledge can be generated and where existing knowledge can be confirmed and applied to actual conditions. In teacher education, a laboratory is a place where prospective teachers can discover what teaching is and how the many complex variables in the teaching-learning process interact with one another. The laboratory provides perspective teachers with a place in which to perform as teachers and in which they may investigate the results of their performance. As a means of improving the quality and quantity of laboratory teaching experiences provided for prospective teachers, Dr. Donald R. Cruickshank and his colleagues at The Ohio State University have developed a new form of laboratory teaching experience, reflective teaching.

What is Reflective Teaching?
Reflective teaching is a form of peer teaching during which several students, acting as teachers, simultaneously teach the same short lesson to several small groups of their peers. The system is very simple and does not require audio-visual equipment or extra personnel.

More than twenty-eight reflective teaching lessons, or RTLs, that deal with some aspect of agriculture have been developed and classroom tested. The content of these RTLs ranges from teaching about angora goats to teaching the dance language of the honeybee. Each lesson meets six criteria: 1) the lesson must be interesting to teach and to learn; 2) the content of the lesson must be somewhat different than the regular academic curriculum, yet the material can be taught in the classroom; 3) the lesson must be short enough to be taught in 10 to 15 minutes; 4) the lesson must allow for some form of evaluation either measurable or observable in order to provide immediate feedback to the teacher; 5) the lesson must contain the information necessary for instruction; and 6) the lesson must foster a specific type of teaching behavior. Currently five different types of teaching behaviors are being used; explaining, demonstrating, fostering attitude change, describing, and a combination of explaining/demonstrating.

During reflective teaching a class of preservice or inservice teachers is divided into small groups of four to six people each. All "teachers" are then given an identical lesson to prepare to teach. The other small group members act as the learners. Those persons designated as teachers take the lesson and are given a few days in which to individually prepare to teach it to their small groups.

On the assigned day, the designated teachers all simultaneously teach their small groups the same lesson (or teach toward the same objective) with a time constraint of 10 to 15 minutes of teaching time. For example, the objective in the angora goat lesson is to get as many learners as possible to correctly answer test questions about angora goats. Additional constraints may be placed on the lessons if desired.

At the conclusion of the assigned period of time, the designated teachers must stop teaching and an evaluation is made of their students' achievement. This normally is in the form of a written test provided by the instructor or in the form of a demonstration by the students of the skill that was taught. The completion of the evaluation provides the designated teachers with immediate feedback concerning whether or not the students learned what was taught. At this time learner satisfaction and teacher satisfaction are also recorded using a series of questions concerning how satisfied learners were with their performance. A discussion then takes place in the small groups among the teachers and the
learners focusing upon the lesson taught, the performance of the teachers, and the sharing of ideas concerning pupil learning.

After approximately 10 to 15 minutes of small group discussion, the entire class gathers into a large group and discusses more general issues about the lesson taught and about teaching and learning. Each teacher explains to the class how he or she taught the lesson and why this particular approach was chosen. Learners offer their opinions concerning the approaches that were used and everyone is given the opportunity to express their thoughts and feeling about the experience. It is the small and large group discussions that make up the reflective portion of reflective teaching, as the students and teachers reflect upon what occurred and why. It is during this 30-35 minute period that time is given for seriously talking and thinking about teaching and the many variables that influence teaching and learning.

Upon completion of the large group discussion the course instructor may make additional observations or comments and select another set of designated teachers for the next lesson.

Advantages of Reflective Teaching
The advantages of using this new innovation, as compared to the more traditional types of laboratory teaching experience, are that reflective teaching:
1. Provides common or shared teaching opportunities.
2. Provides the least expensive form of teaching practice by not requiring special audio-visual equipment or extra personnel.
3. Provides immediate feedback and knowledge of results regarding how well each participant does as a teacher.
4. Is uncomplicated and therefore can easily be transported.
5. Can easily be integrated into the course curricula.
6. Provides the opportunity to explore teaching as a career and self as a teacher.
7. Provides the opportunity to think about teaching and learning in an interrelated way.
8. Provides the opportunity to try out teaching and learning in an interrelated way.
9. Takes considerably less time on the part of the teacher educator.

Reflective teaching is currently being used at Purdue University in the Agricultural Education Methods Course; as well as the more traditional form of laboratory teaching experience, micro teaching. Students have rated this new form of teaching experience as a very valuable and worthwhile experience.

Disadvantages of Reflective Teaching
Currently few disadvantages of this new approach to providing laboratory teaching experience have surfaced. One of the few obvious disadvantages is that the teachers are unable to view themselves on videotape. Videotaping could be adapted to reflective teaching, however, the number of videotape machines necessary would prove to be extremely costly.

Another disadvantage of reflective teaching is that the teachers are provided with the subject matter to be taught rather than having to find it on their own. However, this may not be of great significance or pose a very serious problem for agriculture teachers in this era of pre-developed lesson plans and instructional materials.
Conclusion
Reflective teaching is a laboratory teaching experience that can readily be used in this time of budget pinching, while at the same time allowing for an increase in the number of teaching experiences teacher education students may have without an increase in instructor time. It has been used with great success in the Agricultural Teacher Education classes at both The Ohio State University and Purdue University. Other agricultural education departments across the country may find reflective teaching of benefit and worthy of examination.

A Brief Description of Microteaching
Microteaching is a scaled-down version of a real teaching situation in terms of time and number of students taught and introduces prospective teachers to the complexity of teaching. It was conceived of and first put into practice at Stanford University in the summer of 1963. The technique evolved from a practice in teacher education known as the demonstration lesson. One type of demonstration lesson was the practice lesson taught by preservice education students, usually to peers in their methods classes.

Videotaping was added as a means of improving feedback and retaining a record of progress in teaching ability. Videotaping is not an essential part of microteaching, but it enhances the technique and makes it a more powerful instructional tool.

The purpose of microteaching in YDAE 440 is to provide an opportunity for teacher trainees to obtain a liberal amount of practice, under optimum conditions and without endangering the learning of pupils. When trainees engage in a microteaching lesson in their subject area they focus upon a specific aspect of teaching (i.e. demonstration). The trainees prepare their lessons to be taught and present them to their peers. Each lesson usually lasts anywhere from 15 to 25 minutes in length. Upon completion, the trainees receive a critique of their presentations and a chance to view their performances on videotape.
Methods of Teaching Agricultural Education Lesson #2

ANNOUNCEMENTS

I. Unit: Organization of Pedagogy and Content for Effective Learning

II. Lesson: Motivating Students

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Explain the importance of motivating students.
2. Describe the five primary principles of interest and the seven secondary principles of interest.
3. List and explain at least 10 ways you can help your students want to learn.
4. Utilize the primary and secondary principles of interest in developing effective interest approaches.

IV. Questions to consider:

1. Why does the beginning of a lesson need to interest the students in the topic?
2. What are the principles that guide student motivation and interest?
3. How is the first 5 minutes of a lesson organized?
4. What are some techniques for gaining and maintaining student interest?


V. Laboratory activity.

Interest approach #1
Interest approach #2
MOTIVATION AND INSTRUCTIONS

Purpose of a Lesson Introduction

1. A well-planned lesson introduction orients students to the objectives of the lesson.
2. A well-planned lesson introduction gets and holds students’ attention.

Components of a Good Lesson Introduction

1. A specific statement of what the objective(s) of the lesson is/are in term of student behavior.
2. A number of opportunities for student response and participation.
3. An explanation of why the objective(s) is/are important in terms of student needs.
4. An explanation of how the student will proceed in accomplishing the objective(s) - what they will do; what is expected of them.
5. An explanation of how the lesson relates to past classroom activities, or to the students prior knowledge or experience.
6. A statement of how the students will know when they have achieved the objective(s).
7. A plan of how to use instructional aids, such as real objects, models, chalkboard, charts, etc., if appropriate.

Importance of Good Introduction

The way you introduce your lesson sets the tone for the entire class period. Careful planning will help to insure that the introduction will whet the students’ appetites for what is ahead. However, more than careful planning is required if your introduction is to gain maximum student interest in the lesson. You should support your planning efforts with your own enthusiasm. During your introduction, you should show your students that you are interested in, and enthusiastic about what they will soon be learning.

Some Approaches to Introduction of Lessons

1. Use a related story or incident.
2. Provide thought provoking demonstration.
3. Ask provocative questions.
4. Make a startling statement.
5. Use instructional aids, models, objects, live specimens, etc.
6. Provide an interesting activity for student involvement.
7. Provide the special setting needed for your lesson - golf green, farrowing house, flower shop, dairy barn.
8. Use special awards or goals - FFA, job related, project related, etc.

Know Your Students

Students and classes are different. You should understand the needs, interests and abilities of your students. An introduction that worked well in one class may fail to motivate another class.

Remember: Students must see the need or value in what they are learning.
SOME PRINCIPLES BASIC TO TEACHING*

Interest Approach, Definition of Objectives, Definition of Problems

1. Students must be motivated to learn. Individuals possess some basic physical needs and some personality or social needs -- the desire for recognition, security, response, and new experiences. The wants, needs, and motives of students should be identified.

2. Learners progress in any area of learning only as far as they need in order to achieve their purposes. Often they do only well enough to "get by."

3. The principle of readiness must not be ignored when selecting instructional materials and techniques of instruction. Factors affecting readiness include:
   a. Physiological and psychological maturity
   b. Previous experience including mastery of prerequisites, past success, or lack of success, etc.
   c. Attitudes
   d. Personal adjustment

4. Learning is an active rather than a passive process.

5. Pupils think when they encounter an obstacle, difficulty, puzzle, or challenge in a cause of action that interests them. The process of thinking involves designing and testing plausible solutions for the problem as understood by the pupil.

6. Students learn at an early age that peer consensus is an important criterion; they are uncomfortable when they disagree with their peers.

7. Learning proceeds much more rapidly and is retained much longer when that which is learned possesses meaning, organization, and structure.

8. What is learned is most likely to be available for use if it is learned in a situation much like that in which it is to be used and immediately preceding the time when it is needed.

9. Motivation is strongest when the student perceives that learning can be useful.

10. Students are more apt to throw themselves wholeheartedly into any project if they have participated in the selection and planning of the project.

11. Genuine participation (not pretended sharing) increases motivation.

12. Success in achievement is one of the strongest motivating forces.

13. An effective means of motivation is the setting of goals by the group that leads to a greater identification of students with learning objectives.

Problem Solution--Evaluation

14. Learning is improved when approaches to teaching are used which emphasize that the student in their learning (and in the teaching that accompanies it) inquires into rather than be instructed in the subject matter. Learning is best accomplished through guided discovery, problem-oriented instruction, or inquiry.
The use of group discussion has been shown to bring more ideas into the classroom, to make reading more interesting and more discriminating, and to result in a definite gain in the understanding of problems by students.

Learning from reading is facilitated more by time spent in recalling what has been read than by rereading.

Behaviors which are rewarded (reinforced) are more likely to recur. Reward, to be most effective, must follow almost immediately after the desired behavior and be clearly connected with that behavior in the mind of the learner.

Sheer repetition without indications of improvement or any kind of reinforcement (reward) is a poor way to attempt to learn. When students are aware of their learning progress, their performance will be superior to what it would have been without such knowledge.

Students who are successful and who therefore derive satisfaction from a learning activity are motivated toward additional learning.

The most effective effort is put forth by students when they attempt tasks which fall in the "range of challenge" -- not too easy and not too hard--where success seems quite possible but not certain.

The best way to help pupils form a general concept (principle) is to present the concept in numerous and varied specific situations, contrasting the experiences with and without the desired concept, then to encourage precise formulations of the general idea and its application in situations different from those in which the concept was learned. (There is evidence to indicate that it is better for the students to work out the principle or concept involved -- discovery method -- problem solving.)

The best kind of practice is that which occurs in a functional educational experience. Under such conditions, students use skills and apply facts and principles previously learned and thus maintain learning in a meaningful context.

"Directed" learning is more effective than "undirected" learning. In the development of concepts and in the guidance of students in problem solving, the teacher must present clues for directing the students to the successful discovery and application of the concepts, principles, understandings, and relationships.

To attain maximum transfer of learning:

a. Bring out the feature to be transferred. The "thing" to be transferred from one experience to another could be a fact, a method, a general principle, an attitude, or a way of life.

b. Develop meaningful generalizations. Transfer is more likely to take place when the thing to be transferred is a generalization, a general rule or a formula. It is important that the students become clearly aware of the formula, rule, or generalization to be transferred.

c. Whenever a principle or generalization is to be transferred, it is very important to use a variety of experiences to develop the generalization.

d. Practice the application of the "thing" to be transferred to other fields. Provide students practice in transfer. Just as students can learn to read, so they may learn to transfer.

*Taken from notes by Dr. J. Robert Warmbrod.
WAYS YOU CAN USE TO HELP YOUR STUDENTS WANT TO LEARN

For years you have heard the expression that "you can lead a horse to water but you can't make them drink." I believe you can always make them drink if you just salt them well first. The salt of interest will make students drink from your class. You can:

I. Arouse a feeling of need in the student for the subject matter.
   1. Base teaching on the real life problems of the students.
   2. Encourage students to raise problems or difficulties - to tell what they would like to study.
   3. Be aware of the problems and needs of the student in their home and community.
   4. Point out where someone has achieved success by mastering the knowledge proposed.
   5. Ask students to recall cases where failure or mediocrity has resulted from lack of this knowledge.
   6. Arouse this feeling of need in making the assignment, and then strengthening it as opportunities are offered.
   7. Announce to your students that you are willing to justify any lesson assignment, or else they will not be required to study it.

II. Make use of the natural impulses. (Or understand human nature, know your students, apply psychology, etc.)
   1. Become familiar with the impulses active in high school students. (Example, curiosity, activity, love of advancement, love of praise, wonder, competition, etc.)
   2. Recognize the individual differences.
   3. In planning any selected lesson decide which impulse can be appealed to most effectively, and how it can best be done.
   4. In teaching the lesson carry out the appeal as planned, even if the opportunity for using it must be created.
   5. After teaching a lesson critically evaluate the appeals used and suggest improvements.
   6. Say the thing that will help tie the student's impulse to their problem.

III. Provide satisfactory physical conditions.
   1. As the class assembles check temperature, ventilation, and light.
   2. Provide comfortable chairs.
   3. Keep room in neat order and conveniently arranged.
   4. Display well selected, neatly framed agricultural pictures.
   5. Keep a live bulletin board.
   6. Request frosted glasses in lower sashes if outside distractions occur.
   7. Give consideration to students with defective eyesight, hearing, etc.

IV. Make use of illustrations, personal experiences, important people, events, etc.
   1. Introduce appropriately the experiences of students, self, and others.
   2. Refer to events in which members are interested.
   3. Refer to newspaper articles, bulletins, etc.
   4. Introduce humor, funny stories, etc., that illustrate the point.
   5. Recall appropriate poems, quotations, sayings, etc.

V. Make use of multi-sensory aids.
   1. Use actual materials - preserved, alive, or dried.
   2. Use pictures, charts, etc.
   3. Keep the visual aid away from view until ready or use.
   4. Use field trips and laboratory activities effectively.
   5. Prepare the class to see the visual aid (build-up, curiosity, directions).
   6. Use the blackboard for outlining teaching procedures, sketching, etc.
VI. Base your teaching on thinking rather than memory.
1. Assign problems from the lives of the students.
2. Ask questions that require thinking, judgment, and reasoning.
3. Provide situations for comparisons, evolution, and improvements.
4. Encourage class planning and performance.
5. In examining pupils, ask for reactions to normal life situations.
6. Encourage pupils to make their decisions and to give reasons.
7. Ask each student and two others to score their complete shop projects.

VII. Create doubt, suspense, curiosity.
1. Bring about, in class discussions, a division of opinion, (The more nearly equal the group the surer the doubt.)
2. If there is a strong majority (16-4), call on the weak side first. Restrain the strong side with a doubting implication or statement. Suggest arguments that tend to support the weak side.
3. Don't give away your point of view or position by handling the answers, facial expressions or gestures.
4. In making assignments, attempt to bring about curiosity or difference of opinions.
5. In displaying experimental data, omit certain figures and ask the class to estimate the answer.

VIII. Keep the course well organized as a whole and in its units.
1. Set up at the beginning of the course objectives, or outcomes of the course in terms of the students.
2. Introduce jobs or problems seasonally, and just before they are to be met on the form or job.
3. Make clear to the students the relationship of different parts of the course and how they affect them.
4. Teach based on the psychological; organize for retention based on the logical.

IX. Improve your personality.
1. Convince yourself that you are going to improve.
2. Determine your weak points.
   a. ask for opinion of someone else.
   b. self-analysis and comparison with others, or what should be.
   c. Use personality rating sheet, problems check list, and other.
3. Select the traits for immediate improvement.
4. Recognize that trait improvement is as easy or as difficult as habit breaking and habit making.
5. List the selected traits, and under it list method and technique of practicing them.
6. Practice the technique early and often (never permit an exception; if one occurs, correct it at once).
7. Even go out of your way to provide additional opportunities for practice.
8. Check on yourself to see if you can note progress.
9. Confer with helpful friend throughout this process.

X. Build permanent interest in your pupils.
1. Keep the teaching each day on as high an interest sense as possible.
2. In the teaching process help the student to get started in applying the course (SAE, farming program, ownership, skills, etc.)
3. Offer help, further instruction, and motivation after the course is complete.
4. Give praise and recognition for attainment reached, and suggest higher goals.
5. Provide or suggest personal (and reading) contracts with those who are succeeding.
6. Suggest membership in organizations that promote their special interest.
7. At the close of the course leave the idea that there is other information equally interesting and worthwhile.
PRIMARY PRINCIPLES OF INTEREST

1. All interest apparently has its original source in the "so called" natural impulses, urges, or drives. The most useful are:

   activity                      desire for approval
   love of nature                altruism
   curiosity                    self-advancement
   creativeness                 competition
   gregariousness               ownership

2. That is interesting which affects ourselves, others about us, or humanity at large.

3. Interest increases with an increase in related knowledge of any subject, provided such knowledge is well understood.

4. Interest increases with the acquisition of any given ability or skill.

5. Interest flows, or spreads, from any interesting thing into any uninteresting thing whenever the two are clearly connected in thought.

SECONDARY PRINCIPLES OF INTEREST

1. Thinking is essentially interesting; memorization, uninteresting.

2. Interest is contagious in the sense that one person may "take it" from another.

3. Interest is strengthened by a sense of progress.

4. Interest is created and sustained by a state of suspense.

5. An idea, when fully accepted, becomes a new interest center, from which interest will spread to any other thing that is seen to be connected with it.

6. The novel and unexpected are interesting.

7. Humor creates interest.
ANNOUNCEMENTS

I. Unit: Skills and Resources Used in Effective Teaching

II. Lesson: Utilizing Teaching Skills

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Explain the importance of using the teaching skills throughout the lesson.
2. Compare and contrast how the skills are applied in various teaching situations, e.g. traditional 50-minute class period and 75 or 90-minute block period.
3. Analyze the good and bad points of classroom presentations.
4. Perform five teaching skills.

IV. Questions to consider:

1. How does a teacher establish set at the beginning of the class?
2. How does a teacher effectively use frame of reference?
3. What are the types of questions used in a classroom?
4. How does a teacher control student participation?
5. How is feedback provided to students?
6. How does the use of examples contribute to effective learning?
7. Why is closure important for all lessons?


V. Laboratory activity.

Interest approach #1
Interest approach #2
WHEN STUDENTS WON'T DISCUSS

1. When the topic is beyond the range of their interest, knowledge, or experience.
2. When the topic is not vital to them, not practical.
3. When the leader's introduction of the problem does not make it easy to approach.
4. When the thought isn't plowing deep enough to attract discussion.
5. When the discussion rambles too much.
6. When the discussion of one point becomes worn out.
7. When argument or debate take the place of group thinking.
8. When the group is too large (eight to twelve seems the ideal size.)
9. When the members are strangers to one another.
10. When they don't wish others to know their real thoughts.
11. When the physical surroundings are not favorable to discussion.
12. When there is too much formality.
13. When they are embarrassed by conditions or by the questions asked.
14. When the discussion becomes "personal," killing the search for truth.
15. When they fear ridicule or disapproval.
16. When one is a radical in a group of conservatives.
17. When one is a conservative in a group of radicals.
18. When they are lost in thought.
19. When one person "knows it all."
20. When the leader is "teachy".
21. When the leader is dogmatic, unfair, or intolerant.
22. When the leader has the "I give-you take" attitude.
23. When the leader likes to answer their own questions.
24. When the leader talks too much.
25. When one or two members "hog" the discussion.
26. When they think the leader expects a set answer.
27. When they are pressed or hurried.
28. When the leader has the special pleader's attitude.
29. When the particular question is ambiguously started.
30. When the question is a leading one.
31. When the question has too obvious an answer.
32. When the question has too difficult an answer.
33. When the question is one on which all are fully agreed.
34. When the question is the "yes and no" variety (unless it is likely to split the group between yes and no, leading to explanations.)
35. When their educational system has put a premium on non-expression.

*Prepared by the Department of Agricultural Education - South Dakota State University.*
Teaching Skills

1. Establishing Set:
The term set refers to the establishment of cognitive rapport between pupils and teacher to obtain immediate involvement in the lesson. This skill is concerned with properly preparing students for some upcoming activity. It includes an interesting or novel way of introducing the activity and establishing common frames of reference between the teacher and students in order to facilitate communication. It is basically an initiating activity by the teacher. Experience indicates a direct relationship between the effectiveness in establishing set and effectiveness in the total lesson. If the teacher succeeds in creating a positive set, the likelihood of pupil involvement in the lesson will be enhanced.

2. Establishing Appropriate Frames of Reference:
A student's understanding of the material of a lesson can be increased if it is organized and taught from appropriate points of view. A single frame of reference provides a structure through which the student can gain an understanding of the materials. The use of several frames of reference broadens the general field of understanding more completely than is possible with only one. For example, the Emancipation Proclamation becomes more meaningful to the student when it is understood from the frames of references of the Northern white abolitionist, the Southern white, the European clothing manufacturer, and the political leaders of England, and as an example of the reserved powers of the American President, than if it is discussed simply as the document issued by Lincoln which freed the slaves.

3. Use of Examples:
The use of examples is basic to good, sound, clear teaching. Examples are necessary to clarify, verify, or substantiate concepts. Both inductive (part to whole) and deductive (conclusion from premises, reasoning) uses of examples can be used effectively by the teacher. Effective use of examples includes starting with simple examples relevant to students' experience and knowledge relating the examples to the principles or ideas being taught, checking students to give examples which illustrate the main point, and using analogies and metaphors to relate the unknown to the known or to liven up the examples.

4. Using Questions Effectively:
The ability to ask provocative, answerable, and appropriate questions, and thus to involve pupils actively, is one of the critical skills in teaching. Novice teachers tend to ask questions which are either so general as to be vague and impossible to answer satisfactorily or so specific that they require a one-word "fill-in" response which tends to kill further responses.

   A. Closed Questions:
   Regulating or seeking a specific answer.

   B. Open questions:
   Soliciting, inviting a variety of answers, attempting to spark conversation.

   C. Probing Questions:
   Probing requires that teachers ask questions that require pupils to go beyond superficial "first answer" questions. This can be done by asking pupils for more information or more meaning; refocusing the pupil's or class's attention on a related issue; prompting the pupil or giving them hints; and bringing other students into the discussion by getting them to respond to the first student's answer.

   D. Higher Order Questions:
   Higher order questions are defined as questions that cannot be answered from memory or simple sensory descriptions. They call for finding a rule or principle rather than defining one. The critical requirement for a "good" classroom question is that it prompts students to use ideas rather than just remembering them. Although some teachers intuitively ask questions of high quality, far too many overemphasize those that require only the simplest cognitive activity on the part of the students.
E. Divergent Questions:
These questions are characterized by the fact that there are no "correct" answers. They are usually open-ended questions. They require the students to think creatively, to leave the comfortable confines of the known, and to reach out into the unknown. They ask students to make hypotheses and use their imaginations to reorganize concepts into novel patterns. This skill is designed to sensitize and alert the teacher to what is going on in their classroom by observing the cues their students present. The successful teacher, through visual cues, quickly notes indications of interest, or boredom, comprehension or bewilderment. Facial expressions, directions of the eyes, tilt of the head, activity or non-activity-directed behaviors, conversations, and bodily posture offer commonly recurrent clues which make it possible for the teacher to evaluate their classroom performance according to pupil's reactions. From these cues the teacher can make judgments about whether to continue the activity, change it, slow down, speed up, or use a different mode of instruction. Recognizing student attending behavior is a prerequisite for almost any kind of classroom instructional or management decision.

5. Control of Participation:
The teacher's ability to analyze and to control the use of their accepting and rejecting remarks, their positive and negative reactions, their patterns of reward and punishment.

A. Reinforcement:
This incentive skill is used by the teacher to reward students for proper behaviors. The teacher uses positive reinforcement to increase student participation in classroom discussions.

B. Silence and Nonverbal Cues:
This skill is designed to allow the teacher to control and direct classroom discussions without talking. Nonverbal communication is one of the most neglected means of teacher-student communication, but one of the most powerful. The skill focuses on the controlled use of teacher silence to get students to speak and on techniques of nonverbal communication.

C. Stimulus Variation:
This skill deals with both verbal and nonverbal techniques of stimulating students in order to preclude boredom and apathy in the classroom. It is basically concerned with the teacher varying their behavior in order to keep the students attentive and alert.

D. Cueing:
This skill gives the teacher more control over the success a student has in answering a question or in making a comment. By cueing them ahead of time and through the kinds of cues given, the teacher can greatly increase their chances of making a worthwhile contribution to the class.

6. Providing Feedback:
The feedback process may be simply stated as providing "knowledge of results". Questioning, visual cues, and informal examination of performance are immediate sources of feedback. Teachers unconsciously tap a variety of feedback sources, but unless they are sensitized, they tend to rely unevenly on a limited number of students as "indicators" and to rely on a restricted range of feedback cues.

7. Achieving Closure:
Closure is complementary to set induction. It consists of teacher activities that will help the students perceive a logical organization of the main ideas and pieces of factual information presented in the lesson. In addition to pulling together the major points and acting as a cognitive link between past knowledge and new knowledge, closure provides the pupil with a needed feeling of achievement.

Closure is attained when the major purposes or portion of a lesson, are judged to have been learned so that the student can relate new knowledge to past knowledge. It is more than a quick summary. It pulls together the major points and acts as a cognitive link between past knowledge and achievement. Closure is not limited to the completion of a lesson. It is also needed at specific points within the lesson so that pupils may know where they are and where they are going.
TEN COMMANDMENTS FOR GOOD TEACHING

I will:

1. Base my teaching upon the needs of my students.
2. Make use of the natural impulses of my students.
3. Introduce appropriate illustrations from experience.
4. Use instructional materials appropriately.
5. Provide satisfactory physical conditions.
6. Base my teaching upon thinking rather than memorization.
7. Organize my course so my students can follow me.
8. Create doubt, curiosity, and suspense.
9. Develop a pleasing personality.
10. Build interest that will endure after the course is completed.

* Taken from Dr. W.F. Stewart Methods of Good Teaching
WHAT RESEARCH SAYS ABOUT EFFECTIVE TEACHING

VARIABLES FOUND TO CORRELATE HIGHLY WITH EFFECTIVE TEACHERS
(APPROX. 50 STUDIES)

1. CLARITY (ORGANIZATION) (RS = .37 TO .71)
2. VARIABILITY (RS = .24 TO .54)
3. ENTHUSIASM (RS = .36 TO .62)
4. TASK-ORIENTED (BUSINESSLIKE) (RS = .42 TO .61)
5. CRITICISM (RS = .38 TO .61)
6. TEACHER INDIRECTNESS (RS = .12 TO .51)
7. USE OF STRUCTURING COMMENTS (RS = .35 TO .69)
8. QUESTIONING

* Criticism was negatively correlated with effective teaching
THE 17 CHARACTERISTICS OF AN EXCELLENT TEACHER

There are 17 characteristics that make for an excellent teacher, according to a study by Ruth Tschudin published in Instructor magazine. Tschudin, who took a year's leave from her position as third grade teacher at Hackensack, New Jersey, to complete the study, compared a group of 311 teachers judged excellent by institutions, administrators, and other teachers to a control group of 109 teachers.

The 311 differed from the control group teachers in the following respects:

--Excellent teachers set goals that develop student confidence.

--They gather ideas from a wide range of sources.

--They create better plans and are more willing to change them.

--They are better classroom designers.

--They use common resources in uncommon ways.

--They discipline students with less punishment.

--They work harder at individualizing instruction.

--They use a wider variety of teaching methods.

--They provide appealing activities.

--They actively involve their students.

--They use all the assistance they can get.

--They assign less homework.

--They use teacher-made tests sparingly.

--They use checklists and student folders as alternatives to the "little red gradebook."

--They are more involved in activities outside the classroom.

--They are more humorous and enthusiastic.

--They succeed through hard work.
A Basis for Effective Teaching

1. A motivated learner acquires what they have learned more readily than one who is not motivated. The relevant motives include both general and specific ones; for example, desire to learn, need for achievement (general), desire for a certain reward or to avoid a threatened punishment (specific).

2. Motivation that is too intense (especially pain, fear, anxiety) may be accomplished by distracting emotional states, so that excessive motivation may be less effective than moderate motivation for learning some kinds of tasks, especially those involving difficult discriminations.

3. Learning under the control of reward is usually preferable to learning under the control of punishment . . . learning motivated by success is preferable to learning motivated by failure. Even though the theoretical issue is still unresolved, the practical outcome must take into account the by-products, which tend to be more favorable under reward than under punishment.

4. Learning under intrinsic motivation is preferable to learning under extrinsic motivation.

5. Tolerance for failure is best taught through providing a backlog of success that compensates for experienced failure.

6. Individuals need practice in setting realistic goals for themselves, goals neither so low as to elicit little effort nor so high as to foreordain to failure. Realistic goal setting.

7. Active participation by a learner is preferable to passive reception when learning, for example, from a lecture or a motion picture.

8. Meaningful materials and meaningful tasks are learned more readily than nonsense materials and more rapidly than tasks not understood by the learner.

9. There is no substitute for repetitive practice in the overlearning of skills (for instance, the performance of a concert pianist), or in the memorization of unrelated facts that have to be authorized.

10. Information about the nature of a good performance, knowledge of their own mistakes, and knowledge of successful results, aid the learner.

11. Transfer to new tasks will be better if, in learning, the learner can discover relationships for themselves, and if they have experience during learning of applying the principles within a variety of tasks.

Other matters important to the teacher which are these:

1. The learner learns from their own activity, their own experience. Activity is essential to learning; it is during the activity (experience) that the principles of learning operate. The teacher cannot give the students any learning (in the sense that they can give them pencils).

2. Learning represents a change in behavior, a change that results from experience. The behavior change is proof of the learning. (There may be some learning before a behavior change can be detected.)

3. One's ability to learn depends importantly on what they have learned. Thus, how people are taught affects the development of their ability to learn.
4. In effective teaching, the learner must find their behavior unsatisfactory to themselves. They must be uncomfortable in their "not-knowing" or "not-being-able-to-do" situation.

5. Enabling the learner to have immediate knowledge of the rightness of their responses is important to their learning.

6. Learning is facilitated by continuous knowledge of progress and a high diet of success.

7. At least a fair degree of overlearning or subsequent use of the learning or both are usually necessary for retention of the learning.

8. If the learning is not accepted by the learner to act on, the teacher should not hope for a change in what the learner does, in school or outside of school.

9. The notion that the learner has of themselves materially affects the learning they will do. They may not be expected to have a good self-concept if they are constantly filled with fear, discouragement, and dread.

10. A dominant element in a learning situation is the learner's purpose: What are they learning it for?

11. Goals are great determiners of human behavior. Success and error, from the learner's standpoint, and therefore the satisfaction and annoyance of their act to them, are related to their goal. Only when the learner has a goal should we expect them to exert energy to achieve it. It is the responsibility of the teacher to help the learner know the teaching goal.

12. It is very desirable that the learner be aware of the applicability of what they are learning—see the possibilities of its use. This has motivating value, and increases generalization and the likelihood of transfer.

13. Usually the learner should have opportunity for a good deal of "sequential" practice of the desired behavior, each time going more broadly or more deeply than before. Thus, the experience has new elements in it.

14. The learner should have appropriate tools to work with and materials to work on as they practice or acquire their experience. For example, if they are to acquire certain manipulative skills, they must have the opportunity to practice these skills, using appropriate tools.

15. The learner must have time, and use it, to engage in the activity from which the learning will result. Effective school learning usually requires considerable preparation time. Many students do not spend nearly enough time in study (and other learning activities).

16. Teaching should be evaluated by evaluating the evidence of the learning that takes place as a result of the attempts at teaching. The evaluation should be used to improve learning and teaching.

17. The teacher should conceive of teaching as a process. Teaching implies a proposed and contemplated learning product, teaching objectives. The teacher who does not know what they intend to teach cannot very well plan their teaching, nor can they evaluate their attainment.
LECTURING, TELLING AND TALKING

In American-style education, much of the teaching is done by teachers telling things to students. Some years ago, P. J. Phillips of the University of Texas determined that pupils remember approximately
10% of what they read; 20% of what they hear; 30% of what they see; 50% of what they hear and see; 70% of what they say, and; 90% of what they say as they do a thing.

<table>
<thead>
<tr>
<th>Methods of Instruction</th>
<th>Recall 3 hours Later</th>
<th>Recall 3 days Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telling When Used Alone</td>
<td>70%</td>
<td>10%</td>
</tr>
<tr>
<td>Showing When Used Alone</td>
<td>72%</td>
<td>20%</td>
</tr>
<tr>
<td>Blend of Telling and Showing</td>
<td>85%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Phillip's observations, if correct, confirm that lectures and teacher talks may be rather ineffective teaching methods in many instances. In any classroom and with any subject, however, teachers must tell students things. Telling is an important ingredient in teaching. No teacher can get along without it. Thus, two conclusions might be drawn from this discourse. (1) teachers should avoid excessive telling (talking), and (2) telling/talking should be planned so that it contributes to student learning.

Recognizing student attention span limitations, the need to foster self-esteem in the classroom, and students' need to be active, lessons should generally be planned so that: (1) the teacher is talking/telling less than half the time, (2) every student has the opportunity to contribute and participate in some way, (3) every student experiences success, and (4) part of the class time is devoted to creative, thought-provoking activity.

Although textbooks abound with sound advise regarding use of lecture as a teaching method, I would share with you some thoughts of my own for your consideration. I strongly suspect that some who have passed through our doors remain oblivious to the knowledge and wisdom contained in textbooks--tactile learners, no doubt.

First, to be of any value, what the teacher says must be motivational or inspirational and must attract and maintain the students' attention. Use of challenging questions, arousing curiosity, posing practical problems, and citing examples, applications and anecdotes, along with the teacher's own obvious interest and enthusiasm will satisfy this often-neglected requirement.

Second, whatever the teacher talks about must be clear and well organized. When we talk, we are painting word pictures for someone else to visualize in their mind. Our experiences influence the way that we interpret words we use and those that are used by others. Vast differences exist between the experiences of teachers and students, and therefore between their respective interpretations of work pictures. Clarity can be greatly improved by use of visual aids, demonstrations, field trips, laboratory exercises, and even discussions. Organization also improves clarity and allows the student to more readily understand concepts in context and in logical order and sequence.

Third, one must remember that people (generally) learn in small doses rather than in large chunks of information at a time. Presentation of a single concept, followed by discussion, recitation, review, practice, or some other appropriate activity will help to assure that learning takes place.

Talking is an essential form of communication. The teacher, if nothing else, must be an effective communicator. Keep in mind, though, that talking should be only part of the communication between teacher and student, and that talking may not be the best way to achieve a desired learning objective. Enthusiasm, clarity, variety and activity will enhance communication in the classroom and result in greater student achievement and satisfaction.
One measure of the success of the superior teacher is the manner in which questions are used in the conduct of individual and group instruction. The teacher can improve questioning. A prerequisite is an understanding of the function of questions.

A. Education Functions of Oral Questions During Class Discussion

1. Stimulate learning by questions to:
   --Reveal the need to know
   --Explore the benefit or advantage of knowing
   --Provoke desire to know
   --Promote the acceptance of knowledge offered
   --Evoke willingness to work to seek knowledge

2. Direct learning by questions to:
   --Guide the search for knowledge
   --Identify what needs to be known
   --Consider most likely sources of knowledge
   --Weight relative worth of various knowledge available
   --Relate new knowledge to that previously known
   --Secure information possessed by specific individual
   --Seek recall of specific facts
   --Cause participation in discussion
   --Check accuracy of study in relation to knowledge needed
   --Provoke deduction by logical analysis
   --Focus attention, discipline, rebuff inattention, or censure dilatory effort

3. Evaluate learning by questions to:
   --Gauge capacity or readiness to assimilate new knowledge
   --Test recognition of knowledge needed
   --Evaluate understanding of new conceptions
   --Reveal grasp of new knowledge in relation to previous study
   --Measure new knowledge gained
   --Test comprehension of relationships
   --Appraise the growth in perception of generalization, broad conclusions, or general principles

B. Do's and Don'ts of Questioning

   Students' response habits are determined much by the teacher's questioning technique. This checklist will help the teacher to identify weaknesses in performance.
Check

1. Do evaluate the teaching continuously as the lesson unfolds. Ask questions to test comprehension, understanding, grasp of idea or relationship.

2. Do provoke and direct thinking by a series of questions asked in a logical sequence, each building on the preceding premise.

3. Do phrase questions precisely and carefully so students understand what you want answered.

4. Do ask challenging questions. Avoid the trite or ridiculously simple probe lest the answer be likewise.

5. Do get more "mileage" from questions. Ask several students before acknowledging the right or correct answer.

6. Don't ask questions students could not be expected to answer. The teacher must inevitably supply answer. Students build the lazy habit of quietly waiting for the teacher to answer the questions they could answer. Students may come to question teacher's good sense if they persist in asking questions they should now know.

7. Don't name student to respond before asking question. You telegraph idea all others can relax -- exception, when you have over-participation of students, addressing question aids in some control of the confusion, or you may desire a specific person's answer.

8. Don't always reject first wrong answer. Continue testing it on others who identify it as wrong rather than teacher doing so.

9. Don't supply answers to questions students should be able to answer -- unless teacher's desire is to demonstrate their knowledge.

10. Do ask questions to work the students, not the teacher.

11. Don't identify correct answers by facial expression if you wish to keep the students in doubt.

12. Don't ask questions leading to simple "yes" or "no." They provoke limited thought and little discussion. If asked, follow by "why?"

13. Don't over-question on one point. Cease when sufficient answers have stimulated thought, directed thought, or tested thought. To continue exhausts students' patience and interest.

14. Do raise questions, when lecturing, that premise the teacher's answer. Phrase questions as though student raised, "Now, you may ask . . .?" followed by the teacher's answer.
TYPES AND SAMPLES OF QUESTIONS

Open-ended:  Tell me about the Purdue-Washington Rose Bowl game.  
Tell me about your interviewing experiences.

Direct Question:  What was the Purdue defense like?  
What employment interviewing experiences have you had?

Closed Question:  What scoring play did you like best?  
How do you start employment interviews?

Yes-No, bipolar: Did you see Drew Brees’ first touchdown pass?  
Do you always establish rapport in the opening?

Leading Question: You thought Purdue would win, didn’t you?  
(Yes response) I suppose you consciously try to present a good company image during employment interviews.

Loaded Question: Are you still betting against Purdue?  
What do you think of the weird students colleges are turning out?

Probing Question: Why do you think Washington outplayed Purdue in the second half?  
Why do you think rapport should be optional?

Mirror Question: You say you think Washington outplayed Purdue in the second half?  
You think, then, that rapport is optional in an opening?

The following questions followed each other in an interview— you must infer the answers that must have occurred. Identify the questions as one of the eight types listed above.

What do you know about student evaluation of instructors?
How do you feel about the miserable rating you received?
Why do you say that the rating is unfair?
You mean you think some students were out to get you?
Haid you ever been evaluated before?
Tell me about your TV lecture technique.
Are you going to purchase a copy of the student evaluation results?
Do you feel, like other instructors I have talked with, that the student evaluation committee needed better organization?
How do you think President Jiscke will react to the evaluations?
Why do you think they will ignore the ratings?
ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Utilizing Group Teaching Methods

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Describe and utilize five group teaching methods.
2. Demonstrate desirable teaching behavior.

IV. Questions to consider:

1. What methods are used in group instruction?
2.
3.
4.
5.


V. Laboratory activity.

Peer teaching.
The demonstration method is best used in teaching students how to perform manipulative operations. This method has several advantages: (a) saves time in teaching, (b) concentrates attention of students on relationships to be understood, (c) makes efficient use of "power of observation," (d) is a means of strong motivation, and (e) can be used in training groups or individuals.

In other words, the best way to teach "how" is to "show how".

A demonstration is "any planned performance by a teacher of an occupational skill, scientific principle or experiment". An effective demonstration follows three steps of the "learning cycle".

1. The stimulus step (introducing the problem).
2. The assimilative step (demonstration and development of the understanding by the learner).
3. The application step.

The demonstration method should not be confused with the illustrated lecture method of teaching. An illustrated lecture involves the use of pictures or other materials to illustrate relationships. Slides, moving pictures, charts, specimens, or models are often used. No tools, physical materials, machines, or appliances are manipulated in the teaching process.

In teaching manipulative skills by the demonstration method, the teacher is concerned that the student learn the logical step-by-step procedures in doing the job, the principles that apply, and the related information.

Planning the logical step-by-step points or activities is the key to a successful demonstration. These points must be carefully demonstrated and explained to the learner. Only be developing and using a lesson plan can the teacher hope to do an effective job of teaching.

HOW TO GIVE A DEMONSTRATION

1. Preparing to give a demonstration

   A. How to get ready to instruct learners:

      1. Select suitable jobs, considering:
         a. jobs to be done, complexity, risks, and frequency.
         b. ability of the learners.
         c. need to learn skill.

      2. Set up objectives for teaching - abilities pupil should develop.

   B. Break down the job:

      1. Select important steps.
      2. Pick out key points.
      3. Select the information associated with the steps.
C. Think through how to give a demonstration to determine:

1. How you will prepare the student.
2. How you will teach them.
3. How you will try them out.
4. How you will follow them up.

D. Have in readiness:

1. Proper tools, equipment, and materials.
2. A work place for comfort and efficiency.

II. Giving the demonstration

A. Step 1 - Prepare the learner:

1. Put them at ease.
2. Find out what they know about the job.
3. Explain importance of job.
4. Get them interested in learning job.
5. Place them in correct position to observe job.

B. Step 2 - Teach them the job:

1. Tell, show, illustrate, explain, and question carefully and patiently.
2. Take one step at a time.
3. Stress key points.
4. Present information associated with and related to job.
5. Emphasize safety factors.

C. Step 3 - Try them out:

1. Have them do job--guide them if necessary.
2. Have them do job again, explaining steps, key points, and safety factors.
3. Ask questions and prevent errors.
4. Repeat until you know they know.

D. Step 4 - Follow them up:

1. Put them to work.
2. Check often -- encourage questions.
3. Tell them where to get help.
4. Explain what to do in an emergency.

Additional tips: An effective demonstration should be given in a minimum of time--no longer than about 15 minutes. During the practice period, the teacher should be aware of the activities of each member of the class. As the students work individually, the teacher should move quickly from one student to another. Periodically, the teacher will want to station himself at a location from which they can observe the entire group of students. This will permit effective supervision as well as to allow students to come to them for help. If a number of students are having difficulty in learning a skill, the demonstration should be repeated. The students who have mastered the skill may assist the teacher with those who have not.
Process Outline for Giving a Demonstration

The teacher should try a "DRY RUN" on any demonstration prior to actually giving it. The "dry run" should follow the steps to be used in the actual demonstration.

1. **Orient the students to the demonstration.** - Explain what is to be demonstrated and how it relates to the instructional program. The purposes of the demonstration should be discussed.

2. **Show the students, if possible, what the demonstration is to produce or achieve.** - Having the finished product available for inspection will make it easier for the students to understand the demonstration.

3. **Show and describe the equipment and materials to be used.** - The group can be asked to name and describe equipment and materials needed with the teacher producing the items as they are named. The teacher can finish by showing items not named by the group.

4. **Emphasize safety.** - If goggles are required, students and teacher should be wearing them. The teacher should point out steps where accidents may occur and emphasize safe work habits at all times.

5. **Give the demonstration.** - Each step and important point should be identified and listed. Care must be taken to show and explain each step in a way students can see and understand. To the extent possible, the students can be asked to discuss the demonstration as it is being given. If additional time is available, related information may be injected into the procedures by the teacher. The amount of time to be used in this way should be estimated during the "dry run" so that appropriate preparation can be made.

6. **Summarize as needed.** - Depending on the situation and teacher objectives, the teacher may summarize, a student may be called on to perform the demonstration, or the entire group may be directed to perform the activity demonstrated.
Methods of Teaching Agricultural Education Lesson #5

ANNOUNCEMENTS

I. Unit: Skills and Resources Used in Effective Teaching

II. Lesson: Utilizing Teaching Resources

III. Objectives:

   Upon completion of this lesson, students will be able to:

   1. Identify print, electronic, and other resources used by agricultural science and business teachers.
   2. Identify sources of instructional materials.
   3. Identify types of media used by AgEd teachers
   4. Develop a personal appreciation for and use of instructional technology in the classroom.

IV. Questions to consider:

   1. What materials do agricultural science and business teachers use in their classrooms?
   2. What resources are available to assist agricultural science and business teachers in presenting lessons?
   3. What are common media used in agricultural education?
   4. How are instructional materials developed and disseminated?
   5. How are textbooks used in the agricultural education classroom?

Reference: Links to Education Resources on the Agricultural Education website:
http://www.YDAE.purdue.edu/aged/coursepackets/links.html

V. Laboratory activity.

   The Indiana Agricultural Education Curriculum and Lesson Plan Libraries supplements.
Methods of Teaching Agricultural Education Lesson #6

ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Utilizing Individualized Teaching Methods

III. Objectives:

   Upon completion of this lesson, students will be able to:

   1. Describe and utilize 10 individualized teaching methods.
   2. Demonstrate desirable teaching behavior.

IV. Questions to consider:

   1. What methods are used in individualized instruction?
   2.
   3.
   4.
   5.


V. Laboratory activity.

   Peer teaching.
ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Modifications for Special Needs Learners in the Comprehensive Classroom

III. Objectives:

Upon completion of this lesson, students will be able to:

1.
2.
3.

IV. Questions to consider:

1.
2.
3.
4.
5.

Reference: Guest Speaker, Dr. Teresa Taber Doughty

V. Laboratory activity.

Peer teaching.
Methods of Teaching Agricultural Education Lesson #8

ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Managing the Agricultural Education Classroom

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Identify ways to prevent discipline problems.
2. Develop guidelines for handling discipline.
3. Demonstrate desirable teaching behavior.
4. Develop a personal philosophy of discipline.
5. Recognize factors that create discipline problems.
6. Develop strategy for utilizing school laboratory effectively.

IV. Questions to consider:

1. What are the causes of classroom management problems?
2. What are the common classroom management theories?
3. 
4. 
5. 


V. Laboratory activity.

Peer teaching.
Why Do Students Misbehave?

According to Dr. Nicholson, there are five categories of discipline problems.

A. Causes originating with the student

1. Physical factors
   a) Physical state of the child
   b) Nutritional condition of the child
   c) Physical handicaps and glandular deficiencies
   d) Phase of Growth and Development

2. Mental factors
   a) Need for achievement by slow-learners
   b) Need for recognition and improvement of work habits by gifted

3. Social and emotional factors
   a) Need for affection, security, belonging
   b) Need for heterosexual acceptance

B. Causes originating with the student's group

1. Group climate
   a) Punitive climate
   b) Hostile, competitive climate
   c) Distorted group pride

C. Causes originating with the teacher and school

1. Teacher's attitude - methods of instruction
2. Physical factors of the school
3. Curriculum
4. Lack of guidance
5. Lack of cooperation among faculty

D. Causes originating with the home and community

1. Family background
2. Imitation of elders
3. Attitudes of cliques

E. Causes originating in the larger social order

1. Change in the family role and status
2. Breakdown in the primary group
3. Anxiety of the times
4. Prevalence of unethical culture
5. Impact of urban culture
6. Inequality of opportunity
MAINTAINING GOOD DISCIPLINE

I. Meaning of discipline

1. Good discipline exists when individuals are in a favorable situation for learning. The teacher has "control" of the situation but is not autocratic. "Good" discipline for one situation may not be good discipline for another.

2. **Definition** - Discipline may be considered good when every member of the group is engaged in purposeful effort of the proper kind without annoyance or discomfort to their classmates or associates.

II. Evidence of poor discipline

1. General impression - the teacher has lost control.

2. This loss of control may be evidenced in many ways:
   a. boisterousness  
   b. wisecracks  
   c. all talking at once  
   d. many foolish requests of the teacher  
   e. unjustified activity  
   f. pupil is quiet by inattentive  
   g. reads irrelevant material,  
   h. looks around, etc.

III. Principles to observe in controlling discipline

1. "Stop discipline problems before they start."

2. Have the group help you set up "rules" for governing the class.

3. Plan lessons carefully. "Be interesting," provide for individual differences, avoid monotony, have enthusiasm for what you are doing, provide good working conditions.

4. Know the individuals and their home conditions and problems.

5. Keep class involved in relevant activities.

6. Never make a threat that you are not prepared to carry out. Even if you are prepared, attempts at intimidation usually fail to get desired response.

7. Avoid sarcasm.

8. Know the rules and regulations of the school. Serious complications may result if you do not abide by them.

9. Hold a personal conference with the offending student. Many times they will respond to reason.

10. Let the punishment fit the offense.

11. Avoid public apologies.

12. Be consistent.
13. Punishment by "keeping in" to study the subject is a good way to kill interest.
14. Follow punishment soon after the offense but do not administer it under emotion.
15. Be impartial.
16. Make the attitude of the pupil the center of attention and strive to direct their thinking in such a way as to help them realize the social significance of their act.
17. Never parade the conduct of the pupil before the school. Deal with conduct problems through personal conference as far as possible.
18. The teacher must evidence a spirit of cooperation and helpfulness without a semblance of spying and policing.
19. Misconduct should not be regarded as a crime but as an opportunity for constructive moral education.
21. Rules and regulations should be worked out by the group.
22. Teacher's attitude should express confidence and assurance in the outcome.
23. Teacher should not be supersensitive or easily upset.
24. Teacher should be alert in observing and accurate in interpreting acts of pupils.
25. Do not deal with an angry pupil.
26. Control your own temper; do not assume the act was done to annoy you.
27. Do not decide hastily.
28. Give the pupil a chance to present their point of view; be sure that they understand what they is charged with.
29. Do not hold grudges. Let bygones be bygones when the case is settled.
30. Avoid asking anything in public that reflects on the child.
31. Avoid punishments that will punish you, such as keeping children after school.
32. Do not make remarks that you will whip any student who does certain things. Avoid threats.
33. In dealing with parents, allow parents to present their side and attempt to show them you were right; be sure to keep your head and use courtesy at all times.
SUGGESTIONS TO IMPROVE CLASSROOM DISCIPLINE

1. Be prompt.
2. Be prepared.
3. Be impartial and be fair.
4. Avoid interruptions.
5. Reprimand in private.
6. Be consistent.
7. No politics - no favorites.
8. Don't delay - don't let discipline problems drag out.
9. Look for potential trouble spots.
10. Don't threaten anything you can't carry out.
11. Have a routine in all classroom procedures.
12. Use your voice to advantage - it can soothe or enthuse. Never attempt to speak over a noisy situation.
13. Understand fads in dress, hair styles, language, social teenage customs. Do enforce school policies, but do not try to change the world.
15. Recognize behavior.
16. Don't argue.
17. Develop room standards.
18. Don't ridicule.
20. Don't punish the group.
22. Show a sense of humor.
23. Be formal - never accept any manner of address except Mr., Mrs., or Miss and your last name, or permit other teachers to be referred to except in this manner.
24. Be as quick to praise as to find fault.
25. As a teacher - act your age - don't try to be one of the gang. Distinguish between friendliness and familiarity.
26. Acknowledge your errors and apologize when necessary.
27. Handle your own discipline problems. Consult your fellow teachers and administrators, but don't send pupils to the office except as a last resort. Sending students to the office is an admission of your own ineffectiveness.
28. There are occasions for sending pupils to the office. Find out what the office will back up.
29. Personality traits conducive to good discipline: Fair play, Friendliness, Sincerity, Firmness, Patience, Consistency, Sense of humor

FIVE WAYS TO LOSE RESPECT OF CHILDREN

1. **Shifting responsibility.** Any time you send a pupil to the office (or threaten to) you transfer your responsibility to another person.
2. **Threatening.** Threats set a price on disobedience. If the child is willing to pay the price, they disobeys. The threat may overstep the bounds of reason--then it's they who threatens who is in trouble. If they don't carry out the threat, they weaken their authority. If they do, they lose respect.
3. **Inconsistency.** E. G., punishing one child for an offense and letting another go unpunished for the same offense. For example, exacting one day, lax the next.
4. **Showing temperament.** Pupils have little respect for the teacher who "flies off the handle," or who is unpredictably either hard-boiled or overly sweet.
5. **Belittling.** Disparage a child, their work, their playmates, their goals, possessions and you become smaller in the child's eyes yourself. The worst form is to deprecate a child before their peers.
SOME DISCIPLINARY DEVICES

1. Win the class. Start with a proposal such as room organization, a play, some long-range project, to sell the class on yourself and your program.

2. Be as tough as you ever plan to be on the first day of school.

3. Get the class to want to do the things that you want done.

4. Keep them happy. Learning takes place most easily then. Anyway, to be happy is America's birthright to the child.

5. Keep them busy. Give them wholesome activities, or they will find activities of their own which may not be so wholesome.

6. Plan and have fun with your students. They'll respect your more, or less.

7. "There will be times when the child will want to do what they should; then they may. There will be times when the child will not want to do what they should; then they must." - H. H. Horne

8. Set a good example. The motto, "Do as I say, not as I do" will not work.

9. When trouble arises, face it; don't run away from it.

10. If you make a ruling, stick to it, no matter whom it hits. Never hedge.

11. In handling a disciplinary case, above all else be fair.

12. Take the attitude, "I like you, but I detest what you have done."

13. Never threaten. Be aware of the little word "if". If you do that again, I'll ..." If you must threaten, keep it general. "If you do that again, something very unpleasant will happen."

14. Never settle a disciplinary case when you are angry. Try to apply the same rule to the pupil.

15. Try to get at the real cause of the difficulty. Find out about the pupil's home. Consult their parents, if necessary.

16. Use your voice, eyes, dramatize, explain, appeal, before you punish.

17. If punishment becomes necessary, fit it to the offense. Use disapproval, isolation, deprivation, etc.

18. Keep a daily record on behavior, health habits, and study habits.

19. Paddle or strike yourself before you hit the student.

20. When you must punish, be sure to "take the sting out."

21. Use the attitude, "Let's try to forget and try again."

22. Practice good mental hygiene.

Copied from report given by: Edgar M. Finck, Toms River, NJ
CLASSROOM MANAGEMENT

Classroom Tips

Every teacher, every day, faces problems regarding student behavior. Every teacher meets these problems in their own way. Some enjoy much success; others, not so much. Why the difference? Part of the answer lies in the teacher's ability to prevent problems. Study of behavior difficulties indicates that many "problems" could have been prevented by different action on the part of the teacher. Consider these "traps" to avoid:

1. **Disparaging remarks to or about pupils.** "You are too dumb to be in school," "How dumb can you get," "Stupid," "Blockhead," etc. reflect more on the speaker than on the object.
2. **Personal emotional involvement.** "You can't do that in my room." "I won't have it," "You can't do that to me."
3. **Exaggerations.** "You're never on time," "You're the worst..."
4. **Taking action while angry, hysterical or upset.** You will usually be sorry.
5. **Acting in haste.** Time to get facts may prevent a problem.
6. **Being "buddy-buddy" with youngsters.** Leads, on occasion, to lack of respect.
7. **Easing up on routine...then, "crack-down" suddenly.** This is common, but fruitless, in dealing with tardiness, talking, etc.
8. **Failure to organize ordinary daily routine.** Youngsters must know what is expected. Classes run smoothly when they do so.
9. **Failure to make rules and regulations clear.** Youngsters should know the "why" for rules...they will then understand them and recognize them as fair. (Speaking out in class is common) How to get a chance to talk should be understood at the outset.
10. **Failure to assume a fair share of personal responsibility for pupil behavior.** Attempts to "funnel" all discipline to the office results in lack of stature in the classroom. Except for cases demanding "on the spot" action by the administrator, it is worth a try to iron out a problem on your own time and the student's -- in private.
11. **Challenges to misbehave.** "The next one who does 'such and such' will do 'so and so'."
12. **Stimulation of negative response.** "She yelled at me so I yelled back."
13. **Slapping.** Contrary to policy. Usually done in a fit of temper.
14. **Standing in the hall.** "I told the student to stand outside the door...then when I looked, the student was gone.
15. **Lack of voice control.** Try not to raise your voice.
16. **Being out of the room when it happened.** There are emergencies, of course.
17. **Tension and nervousness.** We're all human, but these rub off on youngsters.
18. **Fretting over the uncontrollable.** I.Q., pupil-teacher ratio, size of the room, dust, weather, etc.
19. **Expecting more or less than pupils can do.** Often hard to judge, it's true.
20. **Use of the paddle, sticks and weapons in the classroom.** The paddle has a place, but not in the classroom ordinarily.
Assertive Discipline
(a program created by Lee Canter)

Canter thinks that teachers fall into three basic categories concerning discipline-assertive, nonassertive, and hostile. He believes that nonassertive and/or hostile teachers are quite likely to be unsuccessful in their discipline efforts.

Successful, assertive teachers take the following positions regarding discipline in their classrooms:

* They will not tolerate any student preventing them from teaching.
* They will not tolerate any student preventing other students from learning.
* They will not tolerate students engaging in any behavior that is not in the student's best interests or in the best interest of other students in the classroom.
* Lastly, they insist that whenever a student chooses to behave appropriately, they immediately recognize and reinforce such good behavior.

An example of an appropriate action that an assertive teacher might take when a student begins to talk and disrupts others is to walk up to the student, look them in the eye, and say, "You must stop talking and get to work."

An effective first step is for the teacher to think through precisely what kind of desired behavior students should exhibit at all times. Most teachers want their students to follow directions, stay in their seats, raise their hands when they want to speak, come to class on time, not disrupt other students, not swear at or tease other students, bring the necessary supplies with them, and so on. The teacher must communicate clearly these expectations to the student, and reinforce them frequently until students do them automatically.

Assertive teachers must also set limits of behavior for students. They must explain the consequences for students. They must explain the consequences for students who do not function within these limits. Teachers might think of these consequences as the "discipline plan" for each particular classroom. When students violate classroom rules, they must be reminded of their action, and they must suffer the consequences that the teacher has explained in advance. Typically, these consequences will range from writing the student's name on the board as a warning to losing privileges, to more severe consequences such as contacting the principal and/or parent.

One key to creating a good classroom climate is for the teacher to systematically apply the classroom rules to all students at all times. This is especially important during the beginning of each class and at the beginning of the school year. If teachers systematically apply their discipline plan, students will quickly come to realize what is expected and usually will conform to the classroom behavior expected by the teacher.

It is equally important for the assertive teacher to systematically reinforce good behavior. This eventually becomes an automatic part of the teacher's actions. Our most effective teachers develop the ability to constantly praise students and reward them with smiles and nonverbal behavior such as little pats on the back or a wink. Research has shown that most students basically wish to please the teacher and receive the teacher's acknowledgment for good work and good behavior.
Teacher Effectiveness Training

(Another popular approach to guidance and discipline, developed by Thomas Gordon, is called "Teacher Effectiveness Training" (TET). Gordon originally worked with parents to help them develop better parenting skills. He called this approach "Parent Effectiveness Training" (PET). Both programs use the same basic techniques to improve adult-child interactions.)

* Consider the classroom space itself to see if changes there might help to improve the setting in which students work.

* Be aware of the little things that can be done ahead of time to help avoid the need for intervention.

* Three basic techniques teachers must identify who "owns" the problem. The teacher "owns" the problem when a student's behavior gets in the way of effective teaching.

* The problem is student-owned when a personal problem or something like a poor grade is upsetting or frustrating to the student.

When the student owns the problem, the teacher should use "active listening" to help the student deal with the situation. Through careful listening and questioning, the teacher can help the student understand, accept, and deal with the feelings associated with the problem.

* Teacher-owned problems require the use of "I-messages" or a clearly defined problem-solving procedure. When using I-messages, the teacher must clearly state the problem being caused by the student without being critical or hurtful. "I get angry and find it hard to teach when there is so much noise in the room." Communicating in this way informs the student then need to negotiate a solution that is acceptable to both parties.

* This negotiated solution may be developed through the use of the "No-Lose Method of Problem-Solving." This procedure requires six steps:
  * Define the conflict.
  * Brainstorm with the student to generate as many potential solutions as possible.
  * Evaluate entries on the list.
  * See if there is one solution that fully satisfies both the teacher and student.
  * Decide how to implement the solution.
  * Evaluate later to see if the plan worked.

* The goal of Teacher Effectiveness Training is to resolve problems in ways that respect both the student's and teacher's rights.
Reality Therapy

(Developed by William Glasser. This approach is described in his book titled *Schools Without Failure*.)

* Glasser assumes that all behavior is the result of choices and that the cause of discipline problems is the selection of poor choices by students.

* A major task of teachers is to help students clearly understand the connections between their behavior (choices) and its consequences.

* Establish good working relationships between the teacher and the student.

* There is no relationship between the substitute teacher and the students. Students thus have little interest in following that substitute teacher's directions.

* The principles of Reality Therapy are put into practice through the use of classroom meetings, clearly defined rules and consequences, the use of plans or contracts with students, and a problem-solving process similar to the one described for Teacher Effectiveness Training.

* During class meetings the teacher learns about the concerns and lives of students; the class can work together to solve problems; and students think about and take responsibility for their actions.

* Three types of meetings: problem-solving to address students' social behavior; educational-diagnostic for understanding the curriculum; and open-ended. Meetings should occur on a regular basis throughout the school week. Younger children benefit from more frequent meetings.

* In order to be effective in guiding and disciplining students, the teacher must clearly state classroom rules.

* Students have some voice in making and changing the rules. Considerable discussion with students is essential to their understanding the need for classroom rules and the consequences of breaking the rules.

* Students who continue to misbehave are dealt with using a seven-step approach.

  1. Build a relationship through communication.
  2. Identify the problem behavior.
  3. Ask the student to evaluate the behavior.
  4. Make a plan to improve behavior.
  5. Convince student to commit to the plan with a handshake, verbal commitment, or written contract.
  6. Accept no excuses if the student does not follow the plan-just make a new plan.
  7. Avoid punishment because it breaks down relationships.

* Good communication is essential to implementing Reality Therapy techniques in the classroom. The teacher builds relationships, defines and modifies rules, and plans with students through the use of communication skills.
Corporal punishment can be defined as the use of physical force on the part of the teacher or administrator to discipline a student. The most common form of corporal punishment might be a paddling.

It is interesting to note that the use of reasonable corporal punishment in schools has generally be upheld by our court systems. The Supreme Court ruled in Ingram vs. Wright that the use of corporal punishment does not necessarily constitute cruel and unusual punishment and thereby does not violate the Eight Amendment. There have been individual court decisions, however, that should warn teachers against using unusually hard forms of corporal punishment. For instance, a Fifth Circuit Court of Appeals ruled that the parents of an eight-year-old girl who had been tied to a chair much of the school day had the right to sue the teacher, the principal, and the school district. A Georgia court found a teacher guilty of criminal assault charges for severely paddling a student. A Louisiana special education teacher was convicted of cruelty to a juvenile and sentenced to one and one-half years of hard labor for using excessive corporal punishment. A Missouri court upheld the dismissal charges of a teacher for slapping a student. These are but a few examples of the growing number of cases in which the courts have determined that educators cannot use unusually harsh corporal punishment methods.

While it is legal in many states to use corporal punishment, and while the courts have generally upheld a teacher's right to use reasonable corporal punishment, most educators and authorities believe that it is best never to do so. The National Education Association has adopted a resolution opposing the use of corporal punishment in schools. The American Academy of Pediatrics and the National PTA have also advocated the abolishment of all forms of corporal punishment in our schools.

Corporal punishment doesn't teach better behavior, but rather, usually causes the students to become more aggressive. Furthermore, corporal punishment may cause long-lasting psychological problems for the students. Creative and effective teachers can develop much more positive ways to elicit desirable student behavior. The use of corporal punishment more often than not creates a barrier that prohibits a positive learning climate in the classroom. All of this, plus the fact that corporal punishment can lead to lawsuits and even teacher dismissal, strongly suggest that teachers should avoid the use of corporal punishment.
Encouraging Self-Discipline

There's a big difference between the way people define discipline and self-discipline.

1. *Discipline*, as most people refer to it, is imposed from the outside. *Self-discipline*, on the other hand, grows from the inside. It involves good judgment, courage, ethical conduct, and a sense of personal responsibility. For example: *Discipline*-a rule enforced by a coach-requires all team members to report to practice on time. But only *self-discipline*-decisions made by individual players-can induce the athletes to stay after practice and spend more time perfecting their skills.

2. *Discipline* often involves training people to obey rules. But *self-discipline* means more than just following orders. *Self-disciplined* individuals follow rules of behavior because they have accepted those rules for themselves.

3. *Discipline* can help schools provide quiet study times during the school day. But students need *self-discipline* to turn off the television set long enough to concentrate on their schoolwork at home.

4. *Discipline* often involves conforming to certain accepted standards of behavior. But truly *self-disciplined* individuals may not always conform to their peers, especially when doing so would violate their own codes of conduct or values.

5. *Discipline* can make young people obey rules prohibiting the use of alcohol or drugs on the school grounds. But only *self-discipline* will enable students to decide for themselves that they will not abuse drugs or alcohol away from school—even if their friends are experimenting.

Self-discipline involves the ability to weigh short-term interests against long-term goals.

Perhaps the most important thing to remember about self-discipline is that it grows from and, yes enhances self-esteem. Thus, self-discipline involves more than "just saying no." The truth is, helping students develop self-discipline involves helping them to say "yes"-accepting goals for appropriate behavior and deciding to act responsibly to meet those goals.
DISCIPLINE

A. Absolute rule violation
   1. Students will be referred to the Principal for appropriate disciplinary action.

B. Classroom rule and Lab rule violation
   1. First Offense
      a. Student will receive one check mark in the grade book and a verbal warning.
   2. Second Offense
      a. Student will receive a second check mark in the grade book and will be referred for a lunch time detention. A note concerning the student’s conduct will be sent home to the parents. The note must be signed and returned the next school day.
   3. Third Offense
      a. Student will receive a third check mark in the grade book and will receive an extra assignment.
         An extra assignment consists of a 1 1/2 page paper about a famous scientist. The student will be sent to the library to complete the assignment. They may not return to the class until the assignment is completed. The student is then responsible for making up the classroom activities and assignments that were missed during their absence.
   4. Fourth Offense
      a. Student will receive a fourth check mark in the grade book and will be sent to the Principal. A note to the parents may be sent home or a telephone call to the parent may be made. A parent teacher conference may be requested.

Students who cause severe disruption will be sent to the Principal.

During the first 9 weeks check marks will be erased each week.
During the second 9 weeks check marks will be erased every two weeks.
During the third 9 weeks check marks will be erased every three weeks.
During the fourth 9 weeks check marks will be erased every four weeks.

The undersigned has read and understands the discipline procedure for the ____________ class.

   Student signature_________________________________________________
   Parents’ signature________________________________________________
STUDENT CONDUCT

A. ABSOLUTE RULES:
   1. The students will be in accordance with the student dress code, behavior code, and others as described in the student handbook.
   2. Students will obey all state, administrative, and school rules.

B. CLASSROOM RULES:
   1. Students will follow directions.
   2. Students will be in their assigned seats when class begins.
   3. Students will not be walking around or talking without permission after class begins.
   4. Students will stay in their seats until dismissed.
   5. Students conduct must be conducive to an educational atmosphere.

C. LAB RULES
   1. Students will follow all safety procedures outlined in the text or given by the instructor.
   2. All talking must be a conversational level.
   3. Lab groups are responsible for the cleanliness of their work areas.
   4. All equipment must be accounted for and returned to its proper place.

The undersigned has read and understands the rules of the student conduct in the ____________ class.

   Student signature______________________________________________

   Parent signature______________________________________________
Student Classroom Policies

1. Have books, paper and pencil ready. Begin work immediately after the bell rings.

2. Participate and help in class planning and discussion.

3. Maintain an atmosphere that helps everyone to study.

4. Contribute to the class and help fellow students.

5. Always do your own assignments.

6. Get all work in on time and in acceptable form.

7. Help keep the room clean, neat and orderly.

8. Keep an individual progress record and try to keep improving it.

9. Take pride in clean speech, appropriate dress, and courteous manners.

10. Protect desks, books and other supplies and equipment.

11. Obey no tobacco rule (applies to all activities including shop, field trips, and FFA).

12. Check out all tools before using.

13. Be sure tools are clean when replacing.

14. Place tools back in proper place.
Methods of Teaching Agricultural Education Lesson #9

ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Managing the Agricultural Education Laboratory

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Explain why application of learning is an important phase in the teaching-learning process.
2. Develop a system for scheduling laboratory activities.
3. Develop a plan for managing laboratory processes such as clean-up procedures.

IV. Questions to consider:

1.
2.
3.
4.
5.


V. Laboratory activity.

Peer teaching.
Establish a regular cleaning schedule. An established cleaning schedule will save the teacher from the task of policing the laboratory after each class, sweeping up sawdust or dirt, hosing down a green house, or returning tools to the storage area. Students do not mind cleaning up the laboratory, but they need some established pattern to follow. One possible cleaning schedule is illustrated in Figure 11-11.

The example in Figure 11-1 is specifically for a class of 14 students. Different cleanup task can be increased or decreased in order to involve all students. After each laboratory class, the inner wheel should be moved one space in a clockwise direction. In this way, all students will share in the cleanup and be assigned a particular task. To make this device work effectively, all students should help with the cleanup, even if they have not worked in the laboratory that day. A brief explanation of each cleanup task follows, and it is important that all students understand the responsibility involved with each task.

"Cleanup" responsibility does not mean that those students assigned do all of the cleanup work. All students should clean up their own area and then help others. The cleanup assignment is to place responsibility for making sure the task is actually completed and doing as much as is needed of the actual cleanup work.

Superintendent - The superintendent announces a cleanup time five to eight minutes before the end of the period and is responsible for seeing that each class member assumes a role in cleaning the laboratory. The superintendent checks to be sure that all projects are properly stored until the next laboratory period and is held responsible if the laboratory is not left in an acceptable condition.

Sweep - The student in charge of this task must see that the entire laboratory is swept and that brooms are returned to the storage area. In an agricultural mechanics laboratory, a sweeping compound should be used once a week to remove fine dust from the floor.

Tools - The assignment for this task involves making certain that all tools are returned to the proper storage.

Trash - Supervision of this task includes seeing to it that all dirt and debris is collected and placed in the proper receptacle.

Welding area - The responsibility for this task includes policing the welding area for unusual metal and having it removed, rearranging hoses and electrical cords, and making sure that all welding and oxyacetylene equipment is properly turned off.

Doors, windows, lights - The student assigned to this task is responsible for making certain that all doors and windows are closed and that all lights in the laboratory are turned off. It is the teacher's responsibility to lock the overhead doors, windows, and the tool storage area after the tools have been removed.

Electrical equipment - This task requires the student in charge to make sure that all electrical equipment is turned off at the end of the laboratory period. This task also includes checking the equipment for unsafe conditions and any other maintenance that needs to be performed on the equipment.

Clean and sweep bench tops - Project activity during the laboratory period will result in sawdust, dirt, soil mixture, scrap lumber, or other scrap material being left on bench tops. Individuals assigned to this task should make certain that benches have been swept before the floor is swept. They should also check for items missed by other students in storing their projects until the next laboratory period. One member should be designated to be responsible for cleaning the sink.

An alternative to the team responsibility approach to cleaning is to hold the student using a certain laboratory area and certain tools responsible for cleaning that particular area and for returning the tool to the proper storage area. Students are expected to assist their fellow students after completing their own cleanup. With this approach, the teacher is responsible for checking the final results.
LABORATORY CLEANUP SCHEDULE
<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Don Adams</td>
<td>Jerry Crowl</td>
<td>Carl Muscle</td>
<td>Carol Purcel</td>
<td>Roscoe Paine</td>
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<tr>
<td></td>
<td>Paul Bres</td>
<td>Luther Dodson</td>
<td>Gerri Blake</td>
<td>Mike Wallace</td>
<td>Mary Luther</td>
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<td></td>
<td>Jim Bond</td>
<td>Jill Easter</td>
<td>Lloyd Walton</td>
<td>Loomis Linkous</td>
<td>Connie Price</td>
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<tr>
<td></td>
<td>Sally Smith</td>
<td>Larry Toth</td>
<td>Tom Neyer</td>
<td>Archie Roarck</td>
<td>Rich Meredith</td>
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<td>4th 2 weeks</td>
<td>5th 2 weeks</td>
</tr>
<tr>
<td>A</td>
<td>Orientation</td>
<td>Woodwork Saw horse</td>
<td>Plumbing</td>
<td>Electricity</td>
<td>Project</td>
</tr>
<tr>
<td>B</td>
<td>Orientation</td>
<td>Small Engines</td>
<td>Woodwork Sawhorse</td>
<td>Plumbing</td>
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<td>C</td>
<td>Orientation</td>
<td>Project</td>
<td>Small Engines</td>
<td>Woodwork Saw Horse</td>
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<td>D</td>
<td>Orientation</td>
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<td>Project</td>
<td>Small Engines</td>
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<td>E</td>
<td>Orientation</td>
<td>Plumbing</td>
<td>Electricity</td>
<td>Project</td>
<td>Small Engines</td>
</tr>
</tbody>
</table>
ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Exploring Approaches to Teaching Styles

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Define the following approaches to teaching and ascertain the advantages and disadvantages of each:
   a. Problem-solving and Learning styles
   b. Multiple Intelligences
   c. Allen 4-step
   d. Brain Compatible Teaching (4Mat)
   e. Thinking Maps
2. Differentiate between three teaching styles.
3. 

IV. Questions to consider:

1. 
2. 
3. 
4. 
5. 


V. Laboratory activity.

Peer teaching.
Problem Solving Teaching: The Difference

What makes agricultural education different from other public school education programs? Many agricultural educators would quickly respond the FFA or supervised agricultural experience (SAE). Some might include the problem solving approach to teaching but not many. Ira Dickerson, in his address to the profession at the 1983 AVA Convention, stated that problem solving is what makes education in agriculture vocational. Many of the very early leaders in agricultural education were students of John Dewey. As a result, they used and promoted the problem solving approach for instruction in agriculture. The problem solving approach works hand-in-hand with the FFA and SAE components in agriculture which is very different from other public school instruction. Nowhere else are students given the opportunity to apply classroom learning to 'real life' problems such as can be accomplished using the problem solving, SAE connection. Students are also given an opportunity to apply what they have learned through FFA activities and contests. No other program in the education of high school youth asks them what their content related problems are, and then uses these problems as the basis for instruction.

How Does Problem Solving Teaching Work and Why?

Problem solving operates under the premise that people, irregardless of age, react to problem situations about the same way. Through an understanding of the problem solving process people can more effectively and efficiently solve the many problems of daily life. John Dewey believed that problem solving came about as a result of reflective thought. He outlined the process of reflective thought and later related it as a process of learning. The reflective thought or learning process is outlined below.

The individual or learner:
1. experiences a provocative situation,
2. defines the problem,
3. seeks data and information,
4. formulates possible solutions to the problem,
5. tests proposed solutions to the problem, and
6. evaluates the results of the action.

Summary

Problem solving teaching is an effective teaching approach because:
1. it draws on student needs and problems,
2. it involves the student in the learning process,
3. it can utilize a variety of instructional methods,
4. it can be applied to almost any situation,
5. it has concrete results that students can see and benefit from, and
6. it is problem centered not subject centered.

References on Problem Solving Teaching
OUTLINE OF TEACHING PLAN FOR A PROBLEM AREA

I. Unit Title

II. Lesson Title

III. Situation

IV. Teacher Objectives

V. Teaching Procedures
   A. Interest Approach (Determining present practices and past experiences)
      1. Lead questions
      2. Other techniques to be used (demonstration, field trip, etc.)
   B. Anticipated group objectives
      1. Lead questions
      2. Anticipated student response
   C. Anticipated problems and concerns
      1. Lead questions.
         Ask questions which lead students to list the things they need to know or know how to do in order to accomplish the objectives.
         What do we need to know and be able to do in order to _______?
         What do we need to know and be able to do to accomplish our goals?
         What decisions must we make if we are to _______________?
         What skills will we need if we are ____________________?
         What information will we need if we are able to ______________?
      2. List on anticipated problems and concerns
         Ask follow-up questions and use examples to draw out problems and questions not raised by students.
         Add problems and questions as needed to complete the content of the unit.
         State problems and concerns in question form.
   D. Techniques to be used in solving problems (Steps in problem solving)
   E. (Brief statement or list of steps that will be used)
      Select a problem
      Problem introduction
      Class Presentation (can be a variety of methodologies)
      Conclusions
   F. References and teaching aids. (specific)
   G. Special activities and events (specific plans for)

VI. Summary and Evaluation
   A. List of approved practices
   B. Evaluation
Sample Problem Solving Lesson Plan

Name: ___________________________ Date Last Revised: ____________

UNIT: Soil, Air, and Water (Natural Resources Management State Curriculum - Unit L)

LESSON TITLE: Understanding The Importance of Water (Student Learning Objectives 1, 2, 3)

SITUATION: This lesson is to be taught to a junior-level Natural Resources Management class. Previous to this lesson the effects of air pollution on the environment were determined. Class is taught in 50-minute periods.

TEACHER OBJECTIVES: At the completion of this lesson the students will be able to complete the following objectives with 80% accuracy.

1. Explain why water is important.
2. Identify how water is classified and give two examples of each.
3. Draw a simple sketch of the Hydrologic Cycle and explain what it is.
4. List five ways water is useful to us.
5. Tell who is the largest use of water and why.
6. List the water requirements for selected farm products.
7. Distinguish to what extent water usage is increasing.
Documentation of Competencies and Academic Standards Met by This Lesson:

Connection to SAE/Career Development:
Careers related to Water include agricultural construction engineer, agricultural engineer, agricultural inspector, agricultural extension agent, agricultural scientist, agronomist, biophysicist, botanist, farmer, environmental scientist.

Proficiency areas related to Water include Diversified Crop Production, Diversified Horticulture, Environmental Science and Natural Resource Management, Fiber and/or Oil Crop Production, Forage Production, Fruit and/or Vegetable Production, Grain Production, Specialty Crop Production, Turf Grass Management.

Connection to FFA/Leadership Development/Personal Growth:
Agricultural Issues CDE, Environmental/Natural Resources CDE

Literacy/Technology Components:

Mathematics Concepts Taught:

Science Concepts Taught:
Environmental Science Standard 1.30 - Describe how agricultural technology requires trade-offs between increased production
Earth Space Science Standard 1.21 - Identify the various processes that are involved in the water cycle.

English Concepts Taught:
11th Grade Standard 1 - Understand technical vocabulary in subject area reading.
11th Grade Standard 2 - Expository (Informational) Critique
TEACHING PROCEDURE:

A. INTEREST APPROACH: Have examples of things that people use everyday. For example shampoo, window cleaner, contact solution, milk, tea, coke, plant, glue, etc. Ask the students what all of these things have in common. (They all contain Water)

B. Why is it important that we know about water?

   Anticipated Student Responses

   1. Because it is a vital necessity.
   2. To take a shower.
   3. To water our livestock.
   4. It is used everyday in everything's life.

C. Lead question: If water is so important to us what should we know about water?

   1. Why is water necessary?
   2. What are some uses of water?
   3. Who uses the most water?
   4. Where does water come from?
   5. What do we need to know about surface water and ground water?

D. Steps in solving the problems.

   1. Guide students to answer the questions.
   2. Lead students in a discussion to find out how much knowledge they have.
   3. Use the appropriate teaching method to solve the problem based on students’ knowledge.
   4. Discuss and draw conclusions.
   5. Repeat steps 1-4 for the next problem.

E. Plan for solving each problem.

   1. Why is water necessary?
      a. Have students tell why water is necessary in their lives. Have everyone come up with a different answer.
      b. Show film Water for Farm and City, 13 minutes. The effects of water upon the land and its people showing areas which never have enough water, areas which have more water than they can use, those where water comes all at once, and those areas where nature helps control a year around supply.

   2. What are some uses of water?
      a. Students will break up into groups and each group will have an area: Human Life, Animal Life, Farming, Industry, Recreation, Other. The students will decide on the uses of water for their topic. After four minutes we will come back together as a class and share our ideas.
      b. Transparency and Handout #4 "Water Requirement Table of Selected Farm Products"
3. Who uses the most water?
   a. Have each student guess who or what uses the most water. The student or students who guess correctly get two extra bonus points.
   b. Transparency and Handout #3 "Water Users"
   c. Transparency and Handout #2 "Water Demand vs. Supply"

4. Where does water come from?
   a. Transparency and handout #1 "The Hydrologic Cycle" Before explaining the handout and overhead have students write on a piece of paper what they think the interpretation of the picture is. Have each student share with the class their interpretation.

5. What do we need to know about surface water and ground water?
   a. Have each student look up and write down the definition of surface water and ground water. Have each student write down two uses of water from each category i.e. shower, drinking, swimming, fishing. When they get done have them raise their hand. The first one to raise their hand gets to write their answers on the board.
   b. Give each student a magazine and see if they can find an article about the issue of water. Have a short discussion on two of the articles the students vote upon to discuss.
SUBJECT MATTER

SOLVING THE PROBLEM

A. Why is water necessary?
   1. Next to air, water is the most vital necessity.
   2. Our body is made up of 71% water.
   3. Water is necessary for body functions.
      a. blood
      b. digestion
      c. eyes
      d. skin
   4. Water is directly related to the survival of all life.

B. What are some uses of water?
   1. Water is used for irrigation of our cropland.
   2. Water is used for transportation.
      a. Trade between countries is transported by oceans and rivers.
   3. Water is used for recreational purposes.
      a. swimming
      b. fishing
      c. boating
   4. Water is used in industry to process items.
      a. steel production
      b. food processing
   5. Farm animals need water to survive just like people.

C. Who uses the most water?
   1. People living in homes without running water use 10 gal/person/day.
   2. People living in homes with running water use 60 gal/person/day.
      a. 3 million new water faucets are installed every year and no new water supply has been uncovered.
   3. The reasons for increased water usage is:
      a. technological civilization
      b. 1 ton of steel takes 65,000 gallons of water to manufacture.
      c. 800 gallons of water are required to refine 1 barrel of oil.
D. Where does water come from?
   a. The Hydrologic Cycle is what causes rain.
      a. The Hydrologic cycle: Warm air masses loaded with moisture rise from the earth's surface and as it rises it cools. Eventually moist air masses move over continents where after further cooling they condense and fall as rain or snow. Then the process is repeated.

E. What do we need to know about surface water and ground water?
   1. Water that comes from the ground.
      a. The water gets into the ground by percolation. After it rains, water percolates down into the soil and forms underground springs or rivers.
      b. Water that seeps in porous rock or dampness found in subsoil or topsoil is considered ground water.
      c. Ground water makes up 17% of our water supply.

   2. Water that comes from the surface.
      a. Surface water comes from lakes, streams, ponds, river and all forms of wetness, even ice and snow that have not yet been absorbed below ground.
      b. Surface water makes up 83% of our water supply.

   3. The water supplies that we use are becoming contaminated and unfit for use.
      a. This is caused by factories dumping waste and the waste that goes into the air and then is brought into the water supply when it rains.
      b. The use of chemicals on all of our agricultural practices. The chemicals runoff into our surface water or percolate into the ground water.
      c. People do not dispose of trash properly or do not use recyclable products and the trash gets put into a landfill and the landfill leaks.
REFERENCES AND TEACHING AIDS:

Transparency and handout #1 "The Hydrologic Cycle"
Transparency and handout #2 "Water Demand vs. Supply"
Transparency and handout #3 "Water Users"
Transparency and handout #4 "Water Requirement Table of Selected Farm Products"

Book, Patterns for Preservation

Movie, Water for Farm and City, 13 minutes. Location: Purdue A.V. Center. Shelf number MP1826 or MP2403.

Overhead Projector

Chalkboard

Visual aids for interest approach.

SPECIAL ACTIVITIES AND EVENTS:

Invite a soil conservation representative to talk about water.

Locate the three largest users of water in the community and determine if they could cut down on their water use. Also check to see what they do with their wastewater.

Set up a rain gauge and keep daily records.

Students will discuss what they can do to conserve water.

SUMMARY AND EVALUATION:

A. List of approved practices for the understanding of the importance of water.
   1. Calculate water usage in home.
   2. Irrigate land only during plant stress times. (Not enough rain)
   3. Reduce water contamination through proper management techniques.
   4. Help to educate others on safe water usage.

B. Evaluation
   1. Quiz over the OBJECTIVES
   2. The students will find out who used the most water in our community and evaluate if their water usage could be reduced.
   3. The students will write down for one day the amount of water they use.
ANNOUNCEMENTS

I. Unit: Teaching Methodologies

II. Lesson: Utilizing Student Assisted Instruction

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Define the following approaches to teaching and ascertain the advantages and disadvantages of each:
2. Differentiate between three teaching styles.
3.

IV. Questions to consider:

1.
2.
3.
4.
5.

Reference: YDAE 440 Course Packet pages 102-122.

V. Laboratory activity.

Peer teaching.
Student Assisted Instruction: A Teaching Strategy for the Agricultural Science and Business Classroom

Teachers are constantly in search of different approaches to use in presenting material to their students. Student Assisted Instruction (S.A.I.) is an approach which holds potential for use in classroom routine, by enabling the students to discover for themselves the difficulties encountered in teaching, and holding the capability for developing leadership skills.

What is S.A.I.?

S.A.I. is a form of peer teaching during which several students, acting as teachers, simultaneously teach the same short lesson to several small groups of their peers. S.A.I.‘s potential for use in high school agricultural science and business classrooms is tremendous. The agricultural education teacher can divide the class into small groups of four to six students each, designate one person from each group as that group's teacher, and give all the "teachers" an identical lesson to prepare to teach. The lesson topics can be drawn directly from the material ordinarily covered in the course. Extension publications, portions of textbook chapters, and publications provided free by industries are examples of teaching materials that can be used. Selecting topics which can be covered adequately in the time allotted is of importance.

The students designated as teachers should be given a few days in which to individually prepare to teach the lesson to their small groups. On the assigned day, the designated teachers all simultaneously teach their small groups the same lesson (or teach toward the same objective) with a time constraint of 10 to 15 minutes. The objective of the lesson will depend upon what is being taught. For example, the objective of the lesson for students enrolled in an animal science class would be to correctly answer test questions on the care of baby animals at birth. An example for a plant and soil science class would be for students to be able to properly understand and use the basic skills necessary to take soil samples.

At the conclusion of the assigned period of time, the designated teachers must stop teaching. The students will then be allowed to reflect back and ask specific questions of their teacher concerning the material covered, allowing five to seven minutes for discussion. A short evaluation can then be made of the students' achievement. This short written test should be provided by the agricultural education teacher. Each group can grade their tests to see how well they did in comparison with the other groups. A large group discussion follows, conducted by the agricultural education teacher, to summarize the material that was taught. The teacher should involve all the students in a discussion of the lesson, bringing out key points that might have been stressed by the designated teachers. These key points can be written on the blackboard and should go into the students' notebooks to be used for reference at a later date.

The agricultural education teacher can easily have a new set of teachers and a new lesson the next day. With five students to a group, one week's worth of classes can be taught by the students, or perhaps a particular day of the week, such as Friday, can be set aside for S.A.I.

This approach to teaching high school agricultural science and business can provide a novel experience that students might enjoy from time to time. It can also provide students with the opportunity to see teaching from the instructor's point of view. (Who knows, this might help solve a few discipline problems or at least give the students a better understanding of some of the problems teachers encounter.) It can also have a positive effect on the leadership skills of class members by giving them more opportunities to speak in front of a group, although small, and hold a leadership role.
S.A.I. can also cut down on the number of reading assignments for the entire class by allotting certain reading assignments to just those designated as teachers. This may eliminate some of the problems that arise for teachers who do not have enough textbooks for all the students in the class. Only a handful of students at a time would need to make use of the books.

S.A.I. allows for a competitive atmosphere in the classroom, if that is how an instructor wishes to make use of it. It is thus possible to again assure oneself that the designated teachers will come prepared to teach and the students will be receptive to the material being covered by creating a competition between the small groups concerning the groups' achievement on the evaluation.

S.A.I. would initially require extra teacher time for the planning and construction of lessons to be taught. However, this is true of any new teaching strategy, and if a teacher is well organized and has lessons planned in advance, this should not pose a serious problem. Extension bulletins, free publications from industries and some textbooks may very easily supply the teaching material needed and thus solve this problem.

As teachers search for new approaches for presenting materials to their students, consideration should be given to this approach. It allows for a break in "normal" classroom routine, enables the students to discover the difficulties in teaching, and holds potential for developing leadership skills. Perhaps S.A.I. is a teaching strategy agricultural science and business teachers might find worthy of further examination.
Sample S.A.I. Lesson Plan Packet

Name: ___________________________ Date Last Revised: ____________

Course Title: Advanced Agriculture Mechanics

Unit Title: Mechanical Systems and Technology
(Agricultural Mechanics and Technology – Unit A)

Problem Area: Construction Systems (Number 3)

Lesson Titles: 5 SAI lessons include-Preparing a Foundation; Framing; Roofing; Cutting Rafters; and Insulating Buildings.

Situation: This lesson is to be taught to a junior and senior Advanced Agriculture Mechanics class. Previous to this lesson semester course each student has taken Fundamentals of Agriculture and Agriculture Mechanics. The class length is 50 minutes.

Competencies and Academic Standards Met by this Lesson:

Connection to SAE/Career Development:
Careers Building contractor, construction worker, concrete mason, carpenter, equipment operator
Proficiencies Agricultural Mechanics, Agricultural Mechanics Energy Systems, Agricultural Mechanics Repair and Maintenance Entrepreneurship and Placement, Home and/or Community Development

Connection to FFA/Leadership Development and Personal Growth:
Agricultural Mechanics CDE

English and Language Art Concepts Taught:
11.5.6 Use varied and extended vocabulary, appropriate for specific forms and topics.
11.5.7 Use precise technical or scientific language when appropriate for topic and audience.
11.7.6 Use effective and interesting language, including informal expressions for effect, Standard English for clarity, and technical language for specificity.

Mathematics (Geometry) Concepts Taught:
G.2.5 Find and use measures of sides, perimeters, and areas of polygons, and relate these measures to each other using formulas.

Social Studies (Economics) Concepts Taught:
E.8.10 Identify skills individuals need to be successful in the workplace.
Presentation Title: Preparing a Foundation

You will be the leader of your group for the class period. Your objective is to present the students in your group the material that is in *Agriscience Mechanics* on pages 333-337. On a sheet of paper, develop an outline of all the important details you think should be covered from the information provided in the book on preparing a foundation.

You will have 15 minutes to present this information outline to your group. After the presentation, there will be a short quiz given to your group over the material that you should have covered. The quiz will be developed by the agricultural science and business instructor.

As leader you will be evaluated on your performance. The leader of the group that scores the highest on the quiz will be awarded 10 bonus points. At the conclusion of your presentation you will submit your information outline that will be scored on a 0-5 point scale. The scoring will be based on the completeness and organization of your presentation outline.

Time will be provided in class during supervised study for you to work on your presentation.

Teaching materials:
Interstate Publishers, Inc.
Danville, IL
Lesson 1 Quiz
Advanced Agriculture Mechanics

Lesson: Preparing a Foundation

Directions: Circle the correct answer, T (TRUE) or F (FALSE), for each question.

1. T  F  Wooden frame buildings are only built using a crawl space foundation.
2. T  F  A slab on grade foundation is made of poured concrete area placed a few inches thick at ground level.
3. T  F  Reinforcing wooden beams and wire are used to assure strength within a foundation.
4. T  F  Crawl space foundation is constructed to provide usable space for living underneath the main structure.
5. T  F  Poured concrete foundations are preferred for basements.
6. T  F  An easy way of laying out the foundation of a building is with a hand level.
7. T  F  The 6, 8, 10 triangle method is another method used to layout the foundation of a building.
8. T  F  Batter boards are temporary wooden structures used in squaring and leveling a foundation.
9. T  F  The size, type of construction, and soil type should be considered when determining the size and depth of a foundation.
10. T  F  A crawl space foundation that is constructed of pillars and walls so the wooden joists and sills are at least 5 foot above the ground.

The maximum score on this quiz is 10 points
Lesson Title: Preparing a Foundation

Teacher Objectives: Upon completion of the lesson, students should be able to:
1. Differentiate between the three types of foundations.
2. Explain the proper way to lay out a foundation.
3. Recognize characteristics of a crawl space foundation.
4. Identify the factors that influence the foundations that should be used.

Interest Approach: Ask the students about the different styles of houses (apartments, ranch, bi-level, 2 story) in which they live. Next ask the students about their basement. Make a chart of the number of students with crawl spaces, basements, and without basements. Why should our houses have foundations?

Subject Matter Outline:
1. What is a slab on grade foundation?
   A. Poured concrete area placed a few inches thick above the ground.
   B. Reinforcing steel rods and wire are used to give strength.
   C. The area is covered with gravel, plumbing pipes are installed, and a layer of plastic is placed over the gravel.
   D. Will support heavy loads—equipment, chemicals, livestock.

2. What is a crawl space foundation?
   A. Constructed of pillars and walls so the wooden joists and sills are above the ground at least 18 inches.
   B. Pillars are spaced at key points under floor structures for good support.
   C. Concrete footing is poured when bricks are used as pillars.

3. What is a basement foundation?
   A. Provide usable space underneath the main structure.
   B. Similar to crawl space.
   C. Poured concrete foundations are preferred.

4. How do you lay out a foundation?
   A. Easiest using a surveying level.
   B. 6, 8, 10 triangle is used to lay out foundations.
   C. Batter boards—temporary wooden structures used in squaring and leveling a foundation.

5. What factors influence the size and depth of a foundation?
   A. Size of building
   B. Type of construction
   C. Soil type
Presentation Title: Framing

You will be the leader of your group for the class period. Your objective is to present the students in your group the material that is in *Agriscience Mechanics* on pages 337-347. On a sheet of paper, develop an outline of all the important details you think should be covered from the information provided in the book on preparing a foundation.

You will have 15 minutes to present this information outline to your group. After the presentation, there will be a short quiz given to your group over the material that you should have covered. The quiz will be developed by the agricultural science and business instructor.

As leader you will be evaluated on your performance. The leader of the group that scores the highest on the quiz will be awarded 10 bonus points. At the conclusion of your presentation you will submit your information outline that will be scored on a 0-5 point scale. The scoring will be based on the completeness and organization of your presentation outline.

Time will be provided in class during supervised study for you to work on your presentation.

Teaching materials:
Interstate Publishers, Inc.
Danville, IL
Lesson: Framing

Directions: Circle the correct answer, T (TRUE) or F (FALSE), for each question.

1. T F Framing is the process of constructing a frame for a building.
2. T F The frame must be strong enough to support the foundation.
3. T F Spruce lumber is used for floor joists and rafters.
4. T F Plywood is used to brace the frame.
5. T F Joists and studs are of 2 X 4 lumber.
6. T F A rafter is a sloping part of the frame that supports the sheathing and roofing.
7. T F Rafters should be placed 12 inches apart.
8. T F The span of a rafter is one-half the run.
9. T F Longer runs require larger lumber and closer spacing of rafters.
10. T F The use of wood-trussed rafters makes clear-span buildings possible without increasing the costs excessively.

The maximum score on this quiz is 10 points
Lesson Title: Framing

Teacher Objectives: Upon completion of the lesson, students should be able to:

1. Define framing and rafters.
2. Identify materials that are used to frame buildings.
3. Recognize wood that is suitable for framing different parts of a building.
4. Describe why different bracings are used within a frame.

Interest Approach: Hold up different picture frames (skinny frame, thick frame, dark wood, light wood). Ask the students about the differences between each frame. Why do we use frames to display pictures? Write the responses on the overhead. Why are frames used when constructing a building?

Subject Matter Outline:

1. What is framing?
   A. Process of constructing a frame for the building.
   B. Materials used include lumber, poles, laminated beams, prefabricated materials, and metal.

2. What are the characteristics of framing with lumber?
   A. Must be strong enough to support the structure
   B. Pine-floor joists and rafters
   C. Spruce and other soft woods-studs and similar structures

3. How should walls be framed?
   A. Sidewalls-studs and joists should be spaced equally
   B. Plywood placed at corners act as braces
   C. Diagonal braces increase strength
   D. Joists-2 X 8 or 2 X 10
   E. Studs-2 X 4 or 2 X 6

4. What are rafters?
   A. Sloping part of the frame that supports the sheathing and roofing
   B. Must be strong to provide the proper pitch or slope to a building
   C. Placed no farther than 24 inches apart
   D. Correct size depends on spacing, length, and type of wood used
   E. Run is one-half the span
   F. Span is the distance from the outside edge of one wall to the outside edge of the opposite wall.

5. What is pole framing?
   A. Pole buildings
   B. Easy to construct and inexpensive
   C. Eliminate foundations and leveling
   D. Usually limited to 1 level

6. What is a clear-span building?
   A. Without inside posts of beams
B. Wood-trussed rafters makes clear-span buildings possible without increasing the cost excessively, reinforced by gluing and nailing together, side by side, more than one piece of lumber
Presentation Title: Roofing

You will be the leader of your group for the class period. Your objective is to present the students in your group the material that is in Agriscience Mechanics on pages 347-355. On a sheet of paper, develop an outline of all the important details you think should be covered from the information provided in the book on preparing a foundation.

You will have 15 minutes to present this information outline to your group. After the presentation, there will be a short quiz given to your group over the material that you should have covered. The quiz will be developed by the agricultural science and business instructor.

As leader you will be evaluated on your performance. The leader of the group that scores the highest on the quiz will be awarded 10 bonus points. At the conclusion of your presentation you will submit your information outline that will be scored on a 0-5 point scale. The scoring will be based on the completeness and organization of your presentation outline.

Time will be provided in class during supervised study for you to work on your presentation.

Teaching materials:
Interstate Publishers, Inc.
Danville, IL
Lesson: Roofing

Directions: Circle the correct answer, T (TRUE) or F (FALSE), for each question.

1. T  F   Agricultural buildings are usually roofed with galvanized steel sheets or with asphalt composition shingles.
2. T  F   A girt is a 1 X 6 strip nailed across the rafters 2 feet apart.
3. T  F   A roof is obtained when girts are not installed over an existing roof.
4. T  F   Galvanized sheets expand and contract, which makes it necessary to use nails with special seals.
5. T  F   Preformed metal roofing has the high life expectancy lasting of average 50 to 70 years.
6. T  F   Roll roofing is used on roofs with less pitch.
7. T  F   Life expectancy is 15 to 20 years for asphalt shingles.
8. T  F   Roll roofing should be installed when the temperature is above 60ºF.
9. T  F   Flashing, which is installed in the valleys between roof surfaces that intersect and also where the roof meets vertical surfaces, makes a roof watertight.
10. T  F  Wood shingles are sold by the square that consists of 100 shingles.

The maximum score on this quiz is 10 points
Lesson Title: Roofing

Teacher Objectives: Upon completion of the lesson, students should be able to:
1. List materials that are used as roofs.
2. Define a girt and flashing.
3. Explain why different roofing materials have a longer life expectancy.
4. Describe how shingles are packaged and sold.

Interest Approach: Tell the students that you are getting ready to build a new barn. Ask the students what type of roofing material is the best, and why? Each will probably have some experiences with different types of roofing material. Write their responses on the overhead or board.

Subject Matter Outline:

1. What materials are used to roof buildings, and what characteristics should be considered before choosing a roofing material?
   A. Galvanized steel sheets, asphalt composition shingles, glass or plastic materials
   B. Galvanized sheets are coated with zinc, and they are classified by their weight and thickness
   C. A girt is a 1 X 6 strip nailed across the rafters 2 feet apart
   D. Some roofing materials expand and contract in the heat and cold

2. What are some characteristics of performed metal sheets?
   A. The sheets have increased in popularity
   B. Made of galvanized steel or aluminum
   C. Available in many colors in order to match your home
   D. Manufactured to exact lengths for roofing structures
   E. Snow slides off easily
   F. Highest life expectancy of 30 to 50 years

3. What are the characteristics of asphalt roofing?
   A. Shingles
      i. Shingles have a life expectancy of 15 to 20 years
      ii. Sheathing deck is required
   B. Roll
      i. Used on roofs with less pitch
      ii. Common on utility buildings because it is cheaper
      iii. 10 year life expectancy
      iv. Installed when the temperature is above 45ºF

4. What is flashing?
   A. Makes a roof watertight
   B. Installed in the valleys between roof surfaces that intersect
   C. Installed where roof meets vertical surfaces
   D. Made of strips of metal or other material
   E. Plastic cement is used to form watertight joint between a flashing and a vertical surface

5. What are the characteristics of wood shingles and molding?
   A. Wood shingles are sold by the thousand or by the square in bundles of 250
   B. A square is four bundles
   C. 100 ft² roof
i. 900 wood shingles with 4 inches exposed  
ii. 800 wood shingles with 4 ½ inches exposed  
iii. 720 wood shingles with 5 inches exposed  
D. Molding is sold by the running foot
Presentation Title: Cutting Rafters

You will be the leader of your group for the class period. Your objective is to present the students in your group the material that is in Agriscience Mechanics on pages 355-361. On a sheet of paper, develop an outline of all the important details you think should be covered from the information provided in the book on preparing a foundation.

You will have 15 minutes to present this information outline to your group. After the presentation, there will be a short quiz given to your group over the material that you should have covered. The quiz will be developed by the agricultural science and business instructor.

As leader you will be evaluated on your performance. The leader of the group that scores the highest on the quiz will be awarded 10 bonus points. At the conclusion of your presentation you will submit your information outline that will be scored on a 0-5 point scale. The scoring will be based on the completeness and organization of your presentation outline.

Time will be provided in class during supervised study for you to work on your presentation.

Teaching materials:
Interstate Publishers, Inc.
Danville, IL
Lesson: Cutting Rafters

Directions: Circle the correct answer, T (TRUE) or F (FALSE), for each question.

1. T  F  The birdsmouth is the notch at the point where the rafters rests on the plate.
2. T  F  A common rafter is the hypotenuse of a 30° acute angle.
3. T  F  Lean-to, gable, and hip are different types of roofs used.
4. T  F  A speed square is used to measure correct angles.
5. T  F  The plate is the base on which the lower end of the rafters rests.
6. T  F  Slope is the rise per foot of run, which is calculated by dividing the run by the rise.
7. T  F  The pitch is defined as the distance from the outside edge of one wall plate to the outside edge of the opposite wall plate.
8. T  F  In laying out rafters, the smaller part of the framing square is used for the run.
9. T  F  An upper plumb cut is the horizontal cut at the top end of a rafter.
10. T  F  The pitch can be determined by dividing the rise by the span.

The maximum score on this quiz is 10 points
Lesson Title: Cutting Rafters

Teacher Objectives: Upon completion of the lesson, students should be able to:

1. Explain why rafters must be used instead of prefabricated roof trusses on some buildings.
2. Recognize different tools that are used for laying out and cutting rafters.
3. Define birdssmouth, pitch, and slope.
4. Identify different rafter and roof types.

Interest Approach: Ask the students if anyone has ever built a dog house? Have individuals discuss the procedures they went through to build the frame and the roof. Ask probing questions about how the roof was built.

Subject Matter Outline:

1. Why should we know about building rafters when prefabricated roof trusses are sold?
   A. Prefabricated trusses are only available in select sizes and lengths
   B. Existing buildings may not be the right size for trusses

2. What are some terms associated with building rafters?
   A. Upper and lower plumb cut-the vertical cut at the top and lower end of a rafter
   B. Plate-the base on which the lower end of the rafter rests
   C. Birdssmouth-notch at the point where the rafter rests on the plate
   D. Slope=rise/run
   E. Pitch-the slope or slant of the roof

3. How do you lay out a rafter?
   A. Smaller part of the framing square, the tongue, is used for the run
   B. Speed or framing square is used for measuring the correct angles
   C. Length of a rafter is the hypotenuse of a right angle

4. How do you use a speed square?
   A. Common rafter is the hypotenuse of a 90-degree angle
   B. The 2 sides of the right triangle are the rise and the run
   C. To calculate the length of a rafter, square the run and add it to the square of the rise

5. What are the different types of roofs?
   A. Lean-to, gable, hip, gable and valley, hip and valley
Presentation Title: Insulating Buildings

You will be the leader of your group for the class period. Your objective is to present the students in your group the material that is in *Agriscience Mechanics* on pages 362-364. On a sheet of paper, develop an outline of all the important details you think should be covered from the information provided in the book on preparing a foundation.

You will have 15 minutes to present this information outline to your group. After the presentation, there will be a short quiz given to your group over the material that you should have covered. The quiz will be developed by the agricultural science and business instructor.

As leader you will be evaluated on your performance. The leader of the group that scores the highest on the quiz will be awarded 10 bonus points. At the conclusion of your presentation you will submit your information outline that will be scored on a 0-5 point scale. The scoring will be based on the completeness and organization of your presentation outline.

Time will be provided in class during supervised study for you to work on your presentation.

Teaching materials:
Interstate Publishers, Inc.
Danville, IL
Lesson 5 Quiz
Advanced Agriculture Mechanics

Lesson: Insulating Buildings

Directions: Circle the correct answer, T (TRUE) or F (FALSE), for each question.

1. T F Insulation is a material that serves as a barrier to keep the desired environment in a building.
2. T F Steel is a good insulator because of the metal is very efficient in conducting heat into or out of a building.
3. T F Insulators are materials that are good conductors of heat.
4. T F The three common forms of insulation are batts, sheets, and loose material.
5. T F The secret to effective insulation is in the material that insulation is made of, but not in the ability of the material to trap air.
6. T F Air is an excellent insulator when it is not moving.
7. T F The R-value is the rating of a material to resist heat transfer.
8. T F The lower the R-value the more efficient the material is as an insulator.
9. T F Ceilings will receive a material with an R-value of 11 while walls will receive a material with the R-value of 19.
10. T F Asbestos insulation is an organic material that comes in a fibrous form.

The maximum score on this quiz is 10 points
Lesson Title: Insulating Buildings

Teacher Objectives: Upon completion of the lesson, students should be able to:
1. Define insulation and R-value.
2. Identify materials that are used to insulate structures.
3. List reasons for insulating a structure.
4. Explain problems with asbestos insulation.

Interest Approach: Have each student bring in a copy of a heating bill (gas, electric, wood, etc). See which is the most expensive for the area. Ask the students about heated structures on their parent’s property. Does the barn stay as warm as the house? Ask the students to come up with reasons why other structures are not as warm as the house in the middle of winter.

Subject Matter Outline:
1. What is insulation?
   A. Material that serves as a barrier to keep the desired environment in a building
   B. Resists the flow of heat
   C. Conserves energy used in heating and cooling
   D. Poor conductor of heat
2. What are the materials commonly used as insulation?
   A. Fiberglass, cork, plastic foam, mineral wool, and cellulose
   B. Steel is a poor insulator because the metal is very efficient in conducting heat
3. What are the various forms of insulation?
   A. Batt
      i. 2 ½ to 12 inches thick, widths ranging 15 to 23 inches
      ii. Fiberglass or mineral wool attached to paper
   B. Sheets
      i. Rigid foam ½ to 4 inches thick
      ii. 4 X 8 feet
      iii. Used as sheathing
   C. Loose material
      i. Cellulose, fiberglass, or manufactured wool
      ii. Dumped from bags into an attic, or blow into inaccessible places.
4. How is the R-value determined?
   A. An effective insulation has a great ability to trap air
   B. Materials that hold air are the best insulators
   C. R-value is the rating of the ability of a material to resist heat transfer
   D. The higher the R-value the more efficient the material is as an insulator
   E. Walls receive insulation with R-11
   F. Ceiling receive insulation with R-19
5. What is the problem with asbestos in insulation?
   A. Inorganic material that comes in fibrous forms
   B. Considered hazardous-fibers enter the lungs
   C. Cause lung cancer and damage to the lungs
   D. Only dangerous when disturbed
E. Use caution when adding or modifying existing buildings
ANNOUNCEMENTS

I. Unit: Evaluation

II. Lesson: Evaluating Student Performance

III. Objectives:

Upon completion of this lesson, students will be able to:

1. Define the following approaches to teaching and ascertain the advantages and disadvantages of each:
2. Differentiate between three teaching styles.
3. 

IV. Questions to consider:

1. Demonstrate the proper method of wording test items.
2. Explain criteria for grading students.
3. Plan effective program evaluations.
4. 
5. 


V. Laboratory activity.

Peer teaching.
CRITERIA FOR EVALUATING A NOTEBOOK

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HOW TO BUILD A WRITTEN CLASSROOM TEST

By
Lowell Hedges

As a teacher you have probably found that it is not easy to make a good test, for good tests are made after much thought and effort. However, if you understand and follow a few basic rules, then building a good classroom test will not seem like an insurmountable task.

In general, there are three common ways of testing: (1) practical or performance test, (2) oral or verbal test, and (3) written test. In this discussion, we will concern ourselves with the written test.

When building your next test, try applying these basic rules:

1. Have a specific objective for the test. Some objectives for a test may be: (a) to determine strengths and weaknesses of your students, (b) to determine how well you have taught and to help you do a better job of teaching, (c) to determine the effectiveness of teaching methods and visual aids, demonstrations, field trips and other instructional methods, (d) to help your students learn the basic fundamentals of the lessons, and (e) to help determine the student's grades.

2. Make a careful plan for the test questions. This plan should be written so as to enable you to recognize its strengths and weaknesses. For example, by the use of the test you want to get a general picture of class achievement with some indication of over-all areas of strengths and weaknesses in agricultural mathematics. You decide that you can classify the year's work into two areas: the kind of computation required (addition, subtraction, multiplication) and the way the problem was presented (word statements, thought questions). The questions you prepare would be testing the students in these two areas.

3. Prepare at least ten questions--preferably more. If your test is to diagnose student strengths and weaknesses, enough questions should be asked to sufficiently cover the subject matter.

4. Test on what was taught in class. But at the same time, ask the student to use their knowledge in new situations. Questions should go beyond what was merely to be remembered.

5. Test on critical points of learning. Test items should reveal a pupil's ability to apply known principles, to interpret, to draw conclusions from given data, and to solve problems. Do not emphasize inconsequential details. If you do, then students will also emphasize details and will neglect principles and generalizations.
WHICH TYPE OF QUESTION TO USE?

There are two main types of written questions used to build a good written test: the essay-type question and the objective-type question.

There are no specific rules to tell you which type of question to use. However, it will be easier to decide which type to use if the characteristics of each are kept clearly in mind.

The position of the test in the lesson plan will also have an influence on the type of question used. Certain types lend themselves best to quizzes, while others are better suited to reviews, unit tests, weekly tests, or final examinations.

A quiz can be easily and quickly administered by using objective-type questions such as true-false, multiple-choice or completion type. These types can be easily graded by an interchange of students' papers and marked in class. The teacher may or may not wish to record the grades. Short answer essay-type questions may also be used, but should be graded by the teacher.

An examination should use a variety of types of questions. A balance can be achieved by using the essay-type and a combination of objective-type questions. Variety adds interest and also gives students of varying levels of ability and capacity a chance to achieve partial success in the examination.

The remainder of this discussion is concerned with a more detailed analysis of the two main types of questions. The teacher should familiarize themselves with the purpose and structure of each type of question.

HOW TO WRITE ESSAY-TYPE QUESTIONS

The essay-type item requires the student to give a relatively free written response to a question—usually a problem situation. The answer is usually one or more sentences in length. However, some essay questions may even require several pages for a complete answer.

The essay-type test is best adapted to measuring higher-level intellectual skills such as reasoning required in inference, organization of ideas, comparison and contrast. The student's ability to organize and express their ideas effectively can be judged by the use of the essay-type test. The pupil is forced to consider available facts, select those that are applicable, and express their conclusions or response in their own words.

A good essay-type test, in order to be reliable (stability of test scores) and valid (measure what it claims to measure), should be one which can be evaluated without bias, prejudice, or otherwise influenced by personal impressions. As a teacher, you must avoid being impressed with: (1) legibility of the handwriting, (2) the quantity of writing, (3) the style of writing rather than the content (beware of the student who says nothing, but who says it well with smooth flowing prose), (4) the inter-personal relationship that you have with the student (is the student a "good" student or a "bad" student?), (5) the previous work of the pupil in class during the year, and (6) the relative value of the paper when you compare it with others. Example: An average paper looks good when preceded by a series of poor papers; an average paper looks poor when preceded by excellent papers.
The above precautions emphasize some of the common criticisms aimed at the essay-type question. Another criticism is that the test-taker cannot clearly comprehend the meaning of the question. Such questions do not clearly indicate the response that you expect from the student.

Consider the following questions. Are the responses desired by you, the teacher, clear to the test-taker?

1. Tell what you know about feeding the poultry flock.
2. Tell what happens when grain is run through a combine.

The test-taker could write on the above questions for a considerable length of time and perhaps not give the response desired by the teacher. The student has wasted their time by guessing what you really want as a response. And you would waste your own time by reading the lengthy responses.

Let us re-write the above questions, limiting the scope of the answer to specific parts of the main topic.

1. Recommend a balanced ration for laying hens.
2. Describe the principle by which grain is separated from the straw in the combine.

Do's and Don'ts in Writing Essay-Type Questions

1. Begin the question with "why," "how," "with what consequences," or "with what significance." These words restrict the answer--specify more clearly the intent of the question. Avoid beginning the question with words such as, "discuss," "explain," or "outline." These invite too lengthy and many times irrelevant answers.

2. Do not permit the student a choice among several questions. It is difficult to arrive at comparable scores for students who answer different questions. Also, the student may use incorrect judgment in choosing the questions they feel they can best answer.

3. Before grading the test, list the basic facts that each question is to bring out. Assign specific credit points to each key fact. The weight given to each fact or item should be in proportion to its importance. This technique makes scoring more reliable--more objective, less subjective.

4. When grading the test, read all papers for one question at a time rather than all papers straight through. This way, comparisons of answers will be sharper.

5. Score separately from subject-matter content any credit given for penmanship, spelling, and grammatical expression.
HOW TO WRITE OBJECTIVE-TYPE QUESTIONS

Objective questions, generally speaking, are classified into five major types: (1) multiple-choice, (2) matching, (3) completion of fill-in, (4) true-false, and (5) interpretation of data. There are, of course, numerous variation among these types.

Objective questions—sometimes called "short answer" questions—properly constructed will help dispel the criticism that objective tests require little thought, insight, or understanding.

On the contrary, objective-type questions or tests have the following advantages over the essay-type test: (1) Better coverage of total course content. Students can answer many more questions in same amount of time. (2) Objectivity of scoring is relatively high. There is less chance for the teacher to use personal opinion in grading the test. Questions usually have only one acceptable response. (3) Much time is saved by the teacher in grading the test. Objective questions are easily and quickly graded. (4) Identification of student weaknesses is an easier job and results in a more dependable measure of what a student knows. Students are forced to answer a question directly, and have little opportunity to dodge the intent of the question.

A study and application of the following principles in constructing objective type questions will aid you in providing the value of objective tests.

THE MULTIPLE-CHOICE TYPE OF TEST

A multiple-choice test item consists of a direct question or incomplete statement followed by a series of possible responses or options. The question or incomplete statement is called the "stem". It is relatively long and the response or options are relatively short. There are usually four or five responses or options, only one being the best response. The others are to distract the student lacking in understanding.

The multiple-choice type of test can be used at most class levels and for most subject areas. Multiple-choice test items can be constructed to measure comprehension, information, ability to measure interpretation of data, and understanding of principles.

Do's and Don'ts in Writing Multiple-Choice Test Questions

1. Use at least four responses. Three choices are too few and five too difficult to devise.

2. All answer choices should appear plausible to the test-taker not knowing the correct answer. Incorrect (distracting) responses should distract, not confuse. Incorrect answers should represent common errors in student thinking.

3. Vary the position of the correct response. Put the right response in the first, second, third and fourth position equally often.

4. Avoid the use of "a" or "an" as final words in the question statement, or use any other words that will give a clue to the correct choice.

5. Make answer choices of relatively uniform length. Some test makers include largest number of words in the correct answer. Students soon detect this procedure.
6. The question statement or "stem" and each of the possible responses should make a complete sentence.

7. The responses should be concise and unambiguous.

8. When using an incomplete statement, let the blank that the correct choice will fill be at the end.

9. Have the student place the number or letter of the correct response on a blank to the left of the statement, or place an "X" through the corresponding number or letter.

10. Give instructions on answering the test items.

11. Give an example of how to answer the test questions.

12. Prepare a scoring key.

Example of a Multiple-Choice Type Test

Electric Arc Welding--Agricultural Mechanization

October 15, 2006  Student's Name _____________________________

Section I. Multiple-Choice

Instructions: Each of the following statements or questions is followed by four possible answers. Read the statements and answer each carefully. Select the best answer, even though there may be several answers that appear to be correct. One answer is the best because it is most complete in answering the question or completing the statement. Draw an "X" through the number to the left of the statement that corresponds to the answer selected.

Example:

1. The approximate length of the arc welding with a blue dot electrode is:
   (1) 1/8 inch; (2) 3/8 inch; (3) 1/2 inch; (4) 5/8 inch.
   
   ☒

1. If the weld bead is narrow and high, the trouble is probably:
   1. too high an ampere setting.
   2. too low an ampere setting.
   3. too fast travel speed.
   4. too short an arc.

2. A bead has a large amount of spattering about it. The cause is probably:
   1. too high an ampere setting.
   2. too low an ampere setting.
   3. too fast travel speed.
   4. too short an arc.
THE TRUE-FALSE TYPE OF TEST

The true-false test presents a series of statements or questions on which the student is to express judgment by indicating if they are true or false. The true-false test is best adapted to the testing of a large amount of subject matter in a relatively short period of time.

In using the true-false test, there is a danger of overstressing rote memory of detached and unrelated bits of information at the expense of understanding basic principles.

Do's and Don'ts in Writing True-False Test Questions

1. Avoid using items that are partly true and partly false.
2. Avoid use of double negatives.
3. Write your questions in language that is easy for your pupils to understand.
4. Avoid specific determiners, such as "always", "never", "all", "none", "every".
5. Include only one idea in the question or statement. Double statements are confusing.
6. Do not use trick or catch questions. Do not test on trivial bits of information.
7. Have about half of the questions true and false.
8. Do not follow a set pattern or sequence of true and false statements.
9. Avoid having one statement give answer to another.
10. Frame your questions so that there can be only one interpretation.
11. Avoid long, complicated statements.
12. Avoid quoting directly from the textbook.
13. Prepare a scoring key.
14. Correct score for a true-false test equals the number answered correctly minus the number wrong (S = R - W). This method presumably takes care of guessing.
Example of True-False Type Test

Basic Electricity--Agricultural Mechanization

October 10, 2006

_________________________
Student's Name

Section I. True and False.

Instructions: Answer the following statements true or false. Draw an "X" through the T if the statement is true; an "X" through the F if the statement is false.

Example: T F 1. A blown fuse means that you either have a short in the circuit or an overload.

X

T F 1. A large diameter conductor will carry more current than a small one at a given voltage.

T F 2. A large diameter wire has a larger identification number than a smaller wire.
THE COMPLETION OR FILL-IN TYPE OF TEST

In the completion type of test, sentences are presented from which certain words or phrases have been omitted. The student is directed to complete the meaning of each sentence by filling in the work or words that have been omitted.

The completion-type test requires the student to recall the correct information. There is little chance for the student to guess.

This test is somewhat time-consuming in scoring because students usually provide a variety of answers that are only partially correct. Subjective judgment is therefore required by the teacher who must determine how much credit to give to the student responses.

Do's and Don'ts in Writing Completion or Fill-In Test Questions

1. Do not take direct quotations from the textbook. This encourages rote memorization on the part of the student. Re-phrase the language of the text.
2. Phrase the statement so that the blank calls for a single specific response. Omit words rather than phrases. Scoring will then be more objective.
3. Make all blanks same length and long enough to permit legible answers. Varied lengths of line offer clues as to correct answer.
4. Use language that students understand. Use correct grammar.
5. Avoid clues to the answer. Do not make completions depend on grammatical "pat" or textbook expressions. "A", "an", or verb forms may give away the answer.
6. For lower grade students, use direct quotations rather than an incomplete declarative sentence.
7. In grading the test, be prepared to accept alternative answers if correct.
8. Do not use too many blanks, especially if the sentence is short. This makes it difficult for the test-taker to get the meaning of the sentence.
9. Avoid having one statement give answer to another.
10. Prepare a scoring key. Score by giving a specific weight to each blank correctly filled in.

Example of a Completion Test

Nursery Stock--Horticultural Science
October 1, 2006

_________________________
Student's Name

Section I. Completion.

Instructions: Each of the sentences below has one or more blank spaces, each blank indicating a word (or words) that has been omitted. Read each sentence carefully. You are to choose the one word or sets of words, which, when inserted in the sentence, best fits in with the meaning of the sentence as a whole. Place your answer on the line to the left of the sentence.

Example: two feet 1. The hole for balled plants should be

____________________   1. The best time to transplant bare root plants is in the _____.

____________________   2. Quick growing trees are usually ________ lived trees.

____________________   3. Background trees make a house look ____ than it really is.
THE MATCHING-TYPE TEST

The matching-type test usually consists of two parallel columns or lists; one of names, terms, labels, etc.; the other of definitions, achievements, charts and diagrams, and books, dates or events, etc. The pupil is required to match or associate each item of one column with the item that corresponds to it in the other column.

Do's and Don'ts in Writing Matching-Type Test Questions

1. Construct a test with more than five items but less than 10 or 15. Long lists require the test-taker to spend too much time hunting through them.
2. Select items from one subject field only. More than one subject field in the test is confusing to the student and makes it difficult for the teacher to spot student weaknesses.
3. Arrange names in alphabetical order; dates and numbers in sequence. This will save the test-taker time.
4. Have an excess number of items in the answer column. This lessens the chance of the test-taker matching an item by the process of elimination.
5. Keep the two lists entirely on the same page. This saves time and prevents flipping of pages.
6. Avoid giving away the answer with such clues as having some words singular and some plural. Also watch for revealing associations such as nationality, "slang" expressions, etc.
7. Prepare a scoring key. Score by giving a specific weight to each correctly matched item.

Example of a Matching Test

Feeds and Feeding--Animal Science
October 1, 2006

_________________________
Student's Name

Section I. Matching.

Instructions: From Column B, choose the items that match or connect with items in Column A. Place the corresponding letter of your answer on the line to the left of the number.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: b</td>
<td>1. A carbohydrate feed.</td>
</tr>
<tr>
<td></td>
<td>a. Linseed meal</td>
</tr>
<tr>
<td></td>
<td>b. Corn</td>
</tr>
<tr>
<td></td>
<td>c. Limestone</td>
</tr>
<tr>
<td></td>
<td>d. Alfalfa Hay</td>
</tr>
<tr>
<td></td>
<td>e. B-12</td>
</tr>
</tbody>
</table>


_________________________3. Can be fed to provide calcium. a. Linseed meal b. Corn c. Limestone d. Alfalfa Hay e. B-12
THE INTERPRETATION OF DATA-TYPE OF TEST

In this test, data are presented for the student to consider. Data may be in the form of charts or graphs. Interpretation of the data is also given. The student is required to recognize when an interpretation goes beyond the data and when an interpretation is within the data. The student is asked to "key" the individual interpretations according to a code.

Do's and Don'ts in Writing Interpretation of Data Test Questions
1. Use data that are relevant to the subject area being tested.
2. Include only one point in each statement. Avoid statements that are partly true according to the data given.
3. Divide the interpretation statements fairly evenly among the various code divisions.
4. Use correct grammar in constructing the interpretation statements.
5. Do not follow a set pattern when listing the statements. Have an irregular sequence.
6. Prepare a scoring key.

Example of Interpretation of Data Test

Dairy Cattle Breeding--Animal Science
October 1, 2006

______________________________________________
Student's Name

Section I. Interpretation of Data.

Instructions: Place an (A) in front of each statement that is true and can be proved by the data below. Place an (O) in front of each statement that may or may not be true, but cannot be answered sufficiently from the data below. Place an (I) in front of each statement that is incorrect according to the data below.

Baron Belvedere
Belvedere

4th Duke of Northumberland

Duchess 32nd
Belvedere

Duchess 34th
Duchess 29th

Duchess 55th

Hubback
Norfolk

Nonpareil

Duchess 38th
Belvedere

Duchess 33rd
Duchess 19th

1A Test for Students of Vocational Agriculture on Dairy Cattle Breeding, Columbus Ohio: Agricultural Education Department, The Ohio State University.

Example: _A_ 1. Baron Belvedere and Duchess 34th are from the same sire.

_____ 1. Duchess 19th and Duchess 29th are half sisters.
_____ 2. Belvedere is the dam of several animals in this pedigree.
_____ 3. Duchess 33rd and Baron Belvedere both carry the same amount of Belvedere blood.
TIPS ON ADMINISTERING TESTS

1. If large percentage of student's course grade depends on the test, announce date of test ahead of time so students can study.

2. Duplicate the test. Don't write questions on chalkboard or read them aloud.

3. Produce clean, legible copy. Run off extra copies.

4. Fit the test to the time available. Announce time allotted for test. Give warning five minutes before test is over.

5. Administer the test in a comfortable, familiar setting.

6. Seat the students in such a way as to lessen the temptation to copy. Keep "honest men honest".

7. Make sure all students are ready for the test; sharpened pencils, filled ink pens, proper materials, and desks clear of books, notes and other unneeded articles.

8. Distribute test papers face down. This permits all students to start at the same time.

9. Explain each test section and the instructions.

10. Supervise the test. Move quietly about the room during the test to make sure all students are following the directions. Do not perform other teacher duties while test is in progress.

11. Do not use the test as a form of disciplinary action. Do all you can to ease student tension. An encouraging smile is always helpful.

12. Make certain all students stop work promptly when time is called. Collect test booklets or answer sheets immediately while students are seated. Then call for any other materials.

13. Grade and return test papers promptly. Review with the class.

14. Have class evaluate the test. Ask them for suggestions about the test. Take steps to prevent shortcomings when preparing next test.
BIBLIOGRAPHY

A Test for Students of Vocational Agriculture on Dairy Cattle Breeding. Columbus Ohio: Agricultural Education Department, The Ohio State University.


HOW TO RATE YOUR TESTS

Multiple Choice

Keep the reading difficulty of items low.

Do not lift a statement verbatim from a textbook.

Take care that one item does not provide clues for another item.

If an item is based on an opinion or authority, indicate whose opinion or what authority it was taken from.

Avoid the use of interlocking or interdependent items.

Let the occurrence of correct responses follow a random pattern.

Avoid trick or catch questions.

Avoid ambiguity.

Beware of items dealing with trivia.

Be sure there is one, and only one, correct or clearly best answer.

Items designed to measure understandings, insights, or the ability to apply principles should be presented in novel terms.

Beware of slang associations.

Beware of irrelevant grammatical clues.

Beware of the use of one pair of opposites if one of the pair is the correct or best answer.

Beware of the use of "none of these", "one of the above", or "all of the above" as options.

Use the negative sparingly in the stem of the item.

True/False

Must be limited to items that are definitely true or false.

Often used for specific, isolated, or trivial facts.

Can be used to test meanings and definitions of terms.

Has a high guess factor.
Beware of "specific determiners."

a. The question is usually false when "all", "always", "no", "never", and other all-inclusive terms are used.

b. The question is usually true when "usually" or "sometimes" is used.

Beware of ambiguous and indefinite terms of degree or amount (frequently, greatly, to a considerable degree).

Beware of negative statements and double negatives.

Beware of items that contain more than one statement, particularly when one is true and one is false.

Beware of items where the correct answer depends upon one insignificant word, phrase, or letter.

Matching

The items in a set should be homogeneous.

The number of answer choices should be greater than the number of problems presented.

The set of items should be relatively short.

Response options should be arranged in a logical order.

The directions should indicate whether an answer choice may be used more than once.

Short Answer and Completions

Good for testing knowledge of vocabulary, identification of concepts, ability to solve math problems.

Beware of indefinite or "open" completion items.

Omit only key words.

Do not leave too many blanks in the statements.

Blanks are better put near the end of a statement.

If a problem requires a numerical answer, indicate the units in which it is to be expressed.
Essay Tests

Before writing the question, know exactly what mental process of the student you want to bring out.

Start essay questions with "compare", "contrast", "give the reasons for", "present the arguments for and against", "give original example of", "explain how or why".

Use clear, precise questions.

Don't ask "what do you think", or "in your opinion", or "write all you know about."

Do not have too many questions for time available.

Do not mix essay and objective questions when time is limited.

Do not offer a choice of questions to be answered.

Make a list of all pertinent points that should be covered in the student's answer for each question. Use these when grading.
PRINCIPLES AND PROCEDURES FOR THE MECHANICAL FEATURES OF CLASSROOM TESTS

The mechanical features of a test - how the test is printed and arranged, what instructions are given to the candidates, how the test is to be scored - are no less important than the test items themselves to insure validity and reliability as well as usability. Careful attention by the teacher to test mechanics will not only enhance the value of the test as an evaluation tool but pay handsome dividends in saving teacher time and effort.

The principles and procedures outlined below can serve as a guideline for developing classroom tests. It may also help diagnose the effectiveness preventing factor in the mechanical features of a test. No "score" is possible.

MECHANICAL FEATURES OF CLASSROOM TESTS:

A. Item Format
   1. Number each test item.
   2. Be sure to complete each item on a page.
   3. Have reference material for an item appear on the same page or on a facing page.
   4. Arrange item responses for legibility and economy of space.

B. Scoring Arrangements
   1. Consider the practicability of a separate answer sheet.
   2. Have students indicate their answers with symbols rather than underlining or copying.
   3. Arrange answer spaces in a vertical line for easy scoring.
   4. If answer spaces are placed at the right of the page, clearly associate the answer space the corresponding item.
   5. Use answer symbols that are free from possible ambiguity due to careless penmanship or deliberate hedging (circles and capital letters rather than lower case letters.)
   6. Use answer symbols that are free from confusion with the content of the responses.

C. Distribution of Correct Responses
   1. Distribute correct answers so that the same answer does not appear in a long series of consecutive questions.
   2. Avoid an excessive proportion of items in the test with the same answer.
   3. Avoid a fixed repeating sequence of answers.
STEPS TO CONSTRUCTING EVALUATION DEVICES:

1. Determine the objectives for which you are trying to test.

2. List the facts or principles that contribute to the realization of each objective.

3. Construct the type of test item that will best measure the extent to which each objective has been reached.

4. Assemble the test items, group together those that are of the same form (all matching questions together), and within each group, arrange questions so that those, which deal with related material, will be together.

5. Prepare the necessary directions, making them clear, adequate, and concise.

6. Set the test aside and let it "rest" for a while.

7. Construct a key (acceptable answers), if a test.

8. Re-examine the device at a later time and before giving it to students see if it communicates what you intended. USE THE DEVICE YOURSELF.

9. Have some other person (another teacher, friend, your husband) criticize the test and if possible, actually take the test or use the device.

10. Make necessary revisions.

11. After the test has been administered, study the student responses carefully; correct any weaknesses in the test or device that their responses reveal; continue to revise and improve; add the "best" questions to your file of test items for future use.

COMMON ERRORS IN TEACHER-MADE TESTS:

--- Failing to test over material covered.

--- Failing to have definite objectives in advance of tests that the students know and understand and accept as their own.

--- "Loading" tests with trivial items (the small print in the book).

--- Testing for memorization and not for understanding.

--- Using ambiguous terms in questions presented in such a way that students interpret the meaning and a different way than intended.

--- Using a complicated method of recording answers (when a simple method would be more effective---especially for grading!!)

--- Giving directions that are not clear or are misleading or time-consuming.
A. Completion test question

1. Keep the ratio of words given to words omitted very high.
2. Avoid too many blanks or overmutiliated statements.
3. Make each blank call for the completion of a single idea.
4. The blanks should refer only to omitted key words and phrases, rather than trivial details.
5. Make all blanks the same length to avoid giving clues.
6. Avoid using sentences or paragraphs from the textbook.
7. If the answer involves numerical units--ex/.20 yards, 72 miles, 8 points, -- do not leave blanks for the names of the units.
8. Make sure that the statement is sufficiently complete so that the pupil will complete the item correctly.
9. Avoid the omission of long phrases.
10. Remember that unless a completion item is very carefully constructed, it is likely to become a measure of general reasoning ability.
11. Whenever possible, avoid "an" or "a" immediately before a blank.

B. True-False Item

1. Avoid statements that are broad generalizations, since such statements are practically always false.
   a. Always, never, all, no, none, nothing, only, alone are specific determiners which usually indicate that the sentences are false.
   b. Generally, sometimes, usually, most are specific determiners that usually indicate that the sentence is true.
2. Avoid trivial and meaningless statements.
3. In general, negative statements should be avoided in true-false items, chiefly because they are misread.
4. Avoid developing true-false tests by extracting statements from textbooks. Many statements removed from context are ambiguous. The use of statements from the text encourage rote learning and memorizing attitude during study.
5. Avoid statements that are partly true and partly false.
6. Avoid the use of the double negative.
7. Avoid ambiguous statements since they may be either true or false according to the particular interpretation given to them.
8. If items express opinions, it is important to attribute the opinions to some source.
9. Long and involved statements should never appear in true-false tests because they tend to measure certain aspects of reading comprehension that are better measured by other techniques.
10. Trick questions and catch questions should never have place in an examination.
11. True items and false items should have the same average length--true items tend to be somewhat longer than false items.
12. There should be a random distribution of true and false items, and there should not be any definite proportion of true and false items.
13. Avoid unfamiliar, figurative, or literary language.
C. Multiple-Choice test questions

1. General rules
   a. The item as a whole should present a problem of a kind that will enable the student, if they can solve it, to show evidence of the attainment of an important goal.
   b. Items that attempt to measure insights must include an element or novelty.
   c. The language used in stating the problem should be appropriate to the subject matter.
   d. The items in the test should be independent of one another, and the information supplied in one item should not give away the answer to another.

2. Suggestions for stating a problem
   a. The lead of the item must present a single central problem.
   b. The problem must be accurately stated.
   c. The problem should not measure the ability to understand complex sentence structure except when it is desired to measure that particular ability.
   d. Only one type of multiple choice item should be used in the same questions of the test.
   e. Use at least four or five possible responses in order to minimize chance successes.
   f. Do not mix items with varying number of possible responses in the same test if the scores are to be corrected for guessing.
   g. Arrange the correct response to occur in the same position not more than two or three times in succession.
   h. Make the first, second, third, fourth, - possible responses the correct one in about equal number.
   i. Formulate all the possible responses in such a way that they will appear plausible below the ability level at which the item is intended to discriminate.
   j. Use the direct questions form when possible because it is less unlikely to be ambiguous and is the most natural form of the item.
   k. When the incomplete sentence form is used, make it equivalent to a direct question and place the alternate response at the end of the statement.
   l. Avoid wording statements in such a way that clues are provided through work matching, grammatical consistency or textbook phraseology.
   m. The problem should be stated in a positive form. If stated negatively words as not and never and such prefixes an un in undesirable are capitalized in order to bring them to the attention of the reader.
   n. If an item requires the student to express an opinion or value judgment, it should in most cases ask the student to express, not their own opinion, but that of the authority specified in the item.
3. Rules for developing suggested solutions
   a. The right solution should unquestionably be right and at least two persons should review
      the items and agree upon the correct solution.
   b. The suggested wrong answers should represent errors commonly made by students who are
      to be tested, not popular misconceptions held by people in general.
   c. Irrelevant cues should direct the examinee away from the right answers, if they are unable
      to solve the problem. They should never direct them toward the right answer.
      (1) Examples of "specific determiners"--cues that lead the student to choose an answer
          without having a rational basis for their choice.
          a) Close association through similarity of wording between the problem and correct answer.
          b) More association of a sound between a key work in the lead and a key word in an
              alternative may result in the student selecting that alternative.
          c) Alternatives that are drawn from a different domain than the one under consideration can
              be eliminated by the examinee without further understanding of the problem.
          d) Absolute and all inclusive terms such as never, always, sole and all should not be
              included in wrong alternatives.
          e) Items do not make grammatically correct sentences in combination with each alternative.
          f) Inclusion of non-functional alternatives when functional alternatives cannot be found.
          g) Answers that are much longer or much shorter than others should be avoided.

D. Matching Items
   1. Optimum number of pairs to be selected is probably between five and seven. When the
      number is large the student tends to waste time in hunting for the correct responses.
   2. It is better to include two or three extra responses or to permit a response to be used more
      than once in order to prevent guessing and selection by elimination.
   3. Always explain in the directions the basis upon which the matching is to be made and the
      fact that a response may be used more than once.
   4. The material included in the matching should contain long statements, phrases or
      definitions: the response column should contain single words or short phrases unless the
      content of the item clearly indicates otherwise.
   5. Items in the response column should be arranged systematically to facilitate finding them.
      They may be arranged alphabetically, chronological or in numerical sequence.

E. Free-Response items
   1. Formulate the item in such a way that truly one response is correct: this response should be
      a word, number or at most a short phrase.
   2. Avoid items that supply so much of the crucial information that may be answered correctly
      through the exercise of general intelligence.
   3. Avoid words that afford clues as to correct response.
   4. If the blank spaces to be filled in are arranged in a vertical column, scoring is facilitated.
   5. Do not use exact statements copied from the textbook because this encourages a mental set
      during study that results in memorizing rather than understanding.
GENERAL PRINCIPLES OF TEST CONSTRUCTION

A. Planning the test

1. Adequate provision should be made for evaluating all the important outcome of the instruction.
2. The test should reflect the approximate proportion of emphasis in the course.
3. The nature of the test must take into consideration the purpose it is to serve.
4. The nature of the test must take into consideration the conditions under which it is administered.

B. Preparing the test

1. The preliminary draft of the test should be prepared as early as possible.
2. As a rule the test should include more than one type of item.
3. The content of the test should range from very easy to very difficult for the group being measured.
4. It is usually desirable to include more items in the preliminary draft of the test than will be needed in the final form.
5. After some time has elapsed, the test should be subjected to critical revision.
6. The items should be so phrased that the content rather than the form of the statement will determine the answer.
7. The items should be so worded that the whole content functions in determining the answer rather than part of it.
8. All the items of a particular type should be placed together in a test.
9. The items in the test should be arranged in order of difficulty.
10. A regular sequence in the pattern of response should be avoided.
11. Provision should be made for a convenient record of pupil responses.
12. The directions to the pupils should be as clear, complete, and concise as possible.

C. Trying out the test

1. Every reasonable precaution should be taken to insure normal conditions for the test.
2. The time allowance for the test should be generous.
3. The scoring procedures should be as simple as possible.
4. Before the actual scoring begins, answer keys and scoring keys should be prepared.

D. Evaluating the test

1. The difficulty of the test is a rough indication of its validity.
2. The validity of the individual items in the test is determined by their ability to discriminate between pupils who rank high and those who rank low on the test as a whole.
3. It is good practice to have the items interpreted or criticized by persons who have taken the test.
4. Whenever possible, the results of the test should be checked against outside criticism.
5. It is sometimes desirable to obtain the reliability coefficient of the test.
6. Leave adequate space for the pupil to write their responses, but avoid using blunt lines of different lengths to indicate the length of the proper responses.
7. Use the direct question form in preference to the incomplete statement form.
Appendices

Appendix A  Candidate Disposition Assessment Process
Appendix B  Teaching Evaluation Forms
Appendix C  Bloom’s Taxonomy
Appendix D  Grade Sheet Rubric for Written Lesson Plans
Appendix E  S.A.I. Lesson Packet Grade Sheet
Introduction:

All teacher education students, faculty, and academic counselors will be provided with a copy of the Dispositions To Be Assessed (Form D-1) and the Dispositional Assessment Form (Form D-2) via the Office of Professional Preparation and Licensure (OPPL). Students will be made aware that repeated violations of these dispositions will constitute grounds for a decision regarding separation from the Purdue University Teacher Education Program. This information will also be published in appropriate teacher education documents and reinforced throughout the program.

Procedure:

The Dispositional Assessment Form (Form D-2) may be utilized by all faculty, staff, and classroom teachers to bring a deficiency with regard to professional conduct to the attention of the Teacher Education Council Special Cases Committee. At the conclusion of each semester, course instructors will be asked to submit a Form D-2 for any student who has exhibited a deficiency with respect to the INTASC dispositions listed in Form D-1. The completed form will be distributed to the student, the student’s academic advisor, OPPL, and the Office of Field Experiences (OFE). The student’s academic advisor will monitor each student’s folder to ascertain if more than one D-2 form has been issued to the student.

If a student receives two D-2 forms, the academic counselor will notify the appropriate department head or program chair within 14 days of the filing of the second form. The department head or program chair will schedule a meeting with the student, the academic counselor, the course instructor/coordinate of the course in which a deficiency was observed, and with the individuals submitting the Form D-2s within 14 days to discuss the specific concerns that need to be addressed. (If notification of the second form D-2 falls at the end of a term, the department head or program chair will schedule the meeting within 14 days after the beginning of the next full term in which the student is enrolled.) If the meeting determines that a dispositional issue does exist, a list of actions that the student agrees to follow will be prepared in memo form, and both the student and department head or program chair will sign the agreed course of action to be taken. A copy of the actions to be taken will be placed in the student’s file and sent to OPPL and OFE. The student may also submit any additional information that s/he wishes to include in the record.

If a student receives a third D-2 form, the academic counselor will notify the appropriate department head or program chair within 14 days of the filing of the form. The department head will notify the student and the Director of Teacher Education (Dean of the SOE) within 7 days of the third D-2 form. The Director of Teacher Education will convene the TEC Special Cases Committee within 14 days of notification and will provide documentation regarding the three D-2 forms and the Course of Action Memo. (If notification of the third form D-2 falls at the end of a term, the department head or program chair will schedule the meeting within 14 days after the beginning of the next full term in which the student is enrolled.) The student will be asked to provide any information s/he wishes regarding the three D-2 forms in writing to the TEC Special Cases Committee. The Special Cases Committee shall meet to review the documentation provided and also meet with the student and his or her academic counselor. The Special Cases Committee shall provide one of three recommendations to the Director of Teacher Education within the 14-day period. The recommendations can be: continue in the program, removal from the program, or not enough evidence was provided to make a decision in which case the
student continues in the program. Within 14 days of receiving the recommendation from the TEC Special Cases Committee, the Director of Teacher Education shall make a decision on the case and notify all parties involved including the student, academic counselor, department head, OPPL, OFE, and TEC. The student may appeal further to the Office of the Provost within 14 days of receiving the decision of the Director of Teacher Education.
Purdue University  
Teacher Education Council Form D-1  
Dispositions to be Assessed

Note: Specific dispositions for each licensing area that are tied to the dispositions on Form D-1 may be found at the following website:  
http://www.state.in.us/psb/

Numbers in parentheses refer to the Interstate New Teacher Assessment and Support Consortium (INTASC) principles addressed.

1. Is sensitive to community and cultural norms, and engages in and supports appropriate professional practices for self and colleagues. (3) (9)

2. Demonstrates a willingness to work with other professionals to improve the overall learning environment for students. (7) (9) (10)

3. Takes responsibility for establishing a positive classroom climate and recognizes the importance of peer relationships in establishing a climate of learning. (3) (5)

4. Respects students as individuals and respects students' privacy and confidentiality of information. (3) (10)

5. Treats all students fairly and equitably, valuing individual differences and experiences. (2) (3) (5) (6) (8) (9)

6. Demonstrates an awareness of all aspects of a child’s well being (cognitive, emotional, social, and physical). (3) (6) (10)

7. Shows commitment to adapting instruction to students’ responses, ideas, and needs in order to facilitate the development of students’ critical thinking, independent problem solving, and performance capabilities. (1) (4) (5) (9)

8. Demonstrates flexibility and is open to adjustment and revision based on needs and changing circumstances. (1) (4) (7)

9. Exhibits behaviors that show a commitment to planning, reflection, assessment, and learning as on-going processes. (1) (5) (7) (8) (9)

10. Demonstrates thoughtful, effective verbal and nonverbal communication and responsive listening. (6)

11. Demonstrates enthusiasm for the discipline(s) taught, keeps abreast of new ideas and developments in the field, and sees connections to everyday life. (1)
The following categories of dispositions will be assessed. Examples of behaviors that might be consistent with dispositional deficiencies are given. This list is meant to be illustrative of possible dispositional deficiencies but is neither intended to be exhaustive nor prescriptive. (Numbers in parentheses refer to the eleven dispositions identified above.)

Legal/Ethical Conduct
- Engages in illegal or unethical conduct involving minor children or which would be grounds for dismissal from a teaching position. (1)
- Fails to maintain privacy and confidentiality of student information. (4)
- Violates the Purdue University Code of Student Conduct. (1)

Attendance/Punctuality
- Is frequently late or absent except when excused in advance. (1)

Professional Appearance and Demeanor
- Fails to act or dress according to the standards of the school where the candidate is placed. (1)
- Fails to maintain composure in the classroom. (1) (3)

Reliability/Dependability
- Frequently fails to complete assignments, duties, or tasks on time. (1) (9)

Interactions with Others
- Fails to interact in a positive and professional manner with students, peers, teachers, university personnel, and others. (2) (4) (5)

Fairness/Lack of Bias
- Shows overt bias, prejudice, or lack of fairness toward certain students or groups of people. (3) (4) (5)

Safety/Responsible Conduct
- Acts in a dangerous or irresponsible manner that might put students at risk. (1) (6)

Flexibility/Adaptability/Openness to Feedback
- Is unable to adapt teaching to changing classroom circumstances. (7) (8)
- Reacts defensively or antagonistically to feedback about performance. (1) (8)

Communicative Effectiveness
- Makes frequent errors in oral and/or written communications with students, peers, teachers, university personnel, and others. (10)

Commitment to Student Learning
- Makes negative comments about students' abilities to learn. (6) (7) (9)
- Unable to adapt instruction to meet varying needs and abilities. (7) (8)

Commitment to Improving Teaching Performance
- Makes no effort to improve instructional practices and teaching activities. (7) (8) (9) (10)

Commitment to Profession
- Exhibits poor attitude toward the discipline and/or teaching profession. (1) (11)
Purdue University
Teacher Education Council Form D-2
Dispositional Assessment Form

This form is to be used by faculty, staff or classroom teachers who observe a teacher education candidate's dispositional deficiency as related to their teacher education program of study. For a list of dispositions and possible deficiencies, please refer to Form D-1.

Please complete the entire form and submit it to the department or program area in which the candidate is majoring (e.g., elementary education-Department of Curriculum and Instruction) after you have discussed it with the student.

Candidate Name_________________________________  Student ID No.__________ Date _______

Form Completed By_______________________________    Phone Number ______________

Check any category for which a dispositional deficiency has been observed.

☐ Legal/Ethical Conduct  ☐ Attendance/Punctuality  ☐ Professional Appearance and Demeanor
☐ Reliability/Dependability  ☐ Interactions with Others  ☐ Fairness/Lack of Bias
☐ Safety/Responsible Conduct  ☐ Flexibility/Adaptability/Openness to Feedback  ☐ Communicative Effectiveness
☐ Commitment to Improving Teaching Performance  ☐ Commitment to Student Learning  ☐ Commitment to Profession
☐ Other, please specify

For any dispositional area identified as deficient above, please describe the context of this assessment in specific, observable terms (e.g., course number and name, where situation occurred, specifically what transpired, date) and relate it to the deficiency area(s) addressed. Use the reverse side of the page and/or attach additional sheets if necessary.
1. **Arousing and maintaining interest:**
   a. The teacher **aroused** the interest of the students by helping them see the importance of the lesson in terms of their needs.  
   
   VP    P    F    G    VG    E  10

   b. The teacher **maintained** the interest of the students by appealing to various student desires and values and by varying the types of student participation.  
   
   VP    P    F    G    VG    E  10

2. **Stimulating student thinking:**
   a. The teacher used questions to obtain student participation.  
   
   VP    P    F    G    VG    E  10

   b. The teacher's questions helped the students to **think and reason**, to make judgments, and to **analyze problem situations** rather than emphasize memorization.  
   
   VP    P    F    G    VG    E  10

3. **Use of instructional materials:**
   a. The teacher selected **appropriate** instructional materials (audio-visual equipment, charts, samples, films, reference books, pamphlets, chalkboard, transparencies, etc.) for the interest approach.  
   
   VP    P    F    G    VG    E  5

   b. The teacher **effectively used** the selected instructional materials.  
   
   VP    P    F    G    VG    E  5

**Total Score**

**OVERALL EVALUATION OF INTEREST APPROACH**  VP    P    F    G    VG    E

*Rating Scale: VP-very poor; P-poor; F-fair; G-good; VG-very good; and E-excellent

Name:_________________________  Date of Presentation:___________________

Title of Lesson:__________________________________________________________
Agricultural Education
YDAE 440
Peer Teaching Evaluation (For use by YDAE 440 Instructor)

Name: ______________________  Date of Presentation: ______________________

Title of Lesson: ___________________________________________________________

The Teacher:

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<th>Preparation</th>
<th>Rating</th>
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<tbody>
<tr>
<td>1. Was well organized</td>
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<tr>
<td>2. Had all materials together before start of class</td>
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Presentation

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<tr>
<td>3. Established set</td>
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<td>4. Took positive control of class at the beginning</td>
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<td>5. Displayed enthusiasm throughout</td>
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<td>6. Spoke clearly</td>
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<td>7. Used good questioning techniques</td>
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<tr>
<td>8. Provided positive reinforcement</td>
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<tr>
<td>9. Responded to student questions</td>
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<td>10. Displayed knowledge of subject matter</td>
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<tr>
<td>11. Related subject matter to student concerns</td>
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<tr>
<td>12. Established positive rapport</td>
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Materials/Media

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<td>13. Selected appropriate materials/media</td>
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<td>14. Effectively used materials/media</td>
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General

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<tr>
<td>15. Appropriately handled discipline, used time wisely</td>
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<tr>
<td>used proper teaching methods, appropriate content,</td>
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<tr>
<td>other</td>
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<tr>
<td>TOTAL FOR GRADE</td>
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</table>

Suggestions (Also see back):

Rating Scale:  
5 = A or not applicable
4 = B
3 = C
2 = D
1 = F
Agricultural Education Peer Evaluation Form (For use by YDAE 440 Students)

Name: ___________________________ Date of Presentation: _______________________

Title of Lesson: ____________________________

The Teacher:

Preparation

1. Was well organized

2. Had all materials together before start of class

Presentation

3. Established set

4. Took positive control of class at the beginning

5. Displayed enthusiasm throughout

6. Spoke clearly

7. Used good questioning techniques

8. Provided positive reinforcement

9. Responded to student questions

10. Displayed knowledge of subject matter

11. Related subject matter to student concerns

12. Established positive rapport

Materials/Media

13. Selected appropriate materials/media

14. Effectively used materials/media

General

15. Appropriately handled discipline, used time wisely, used proper teaching methods, appropriate content, other

Overall Suggestions:
YDAE 440 MICRO-LAB
(Videotape Self-Critique of Interest Approach)

Name:_____________________________________  Date Lesson Taught:__________________

Critique of teaching:  Interest Approach – **Due one week after lesson is taught**

Please answer the following questions while observing your videotaped performance. The questions are purposely designed to be answered by the tape observance only so you will consciously evaluate yourselves. Remember that the lab is not a true classroom environment, but we'd like you to make it as real as possible. In doing this, you will make your student teaching more effective.

(1) Exactly how long did you teach? Minutes ____________________

(2) Rate yourself using the following variables:
   
   E - Excellent
   G - Good
   P - Poor
   D - Desire Help

   a. Enthusiasm __________
   b. Developed successful interest approach __________
   c. Audible voice __________
   d. Right speed of voice __________
   e. Use of questions to obtain student participation __________
   f. Questions helped students think and reason __________
   g. Effectively used instructional material __________
   h. Interest approach used one or more Principles of Learning __________
   i. Effectively used instructional technology and visuals __________

(3) Now that you've sat in the student's position, how might your interest approach have become more effective? If it was effective, then tell me why you say so.
YDAE 440 MICRO-LAB
(Videotape Self-Critique of Peer Teaching #1)

Name:_________________________________________  Date Lesson Taught:__________________

Critique of teaching: Peer Teaching #1 - Due one week after lesson is taught

Please answer the following questions while observing your videotaped performance. The questions are purposely designed to be answered by the tape observance only so you will consciously evaluate yourselves. Remember that the lab is not a true classroom environment, but we'd like you to make it as real as possible. In doing this, you will make your student teaching more effective.

(1) Exactly how long did you teach? Minutes ________________________

(2) Rate yourself using the following variables:
   E - Excellent
   G - Good
   P - Poor
   D - Desire Help

   a. Enthusiasm __________
   b. Developed successful interest approach __________
   c. Audible voice __________
   d. Right speed of voice __________
   e. Use of questions to obtain student participation __________
   f. Questions helped students think and reason __________
   g. Questions helped students make judgments __________
   h. Effectively used instructional technology and visuals __________
   i. Effectively used instructional material __________

(3) Now that you've sat in the student's position, how might your interest approach have become more effective? If it was effective, then tell me why you say so.

Continued on Next Page
(4) Did your interest approach and transition lead into and contribute to the lesson content. If yes, tell me how. If not, tell me why.

(5) Did your content follow the order of your objectives? If it didn't, tell me why.

(6) List the areas you feel you need to work on for your next microteaching.
YDAE 440 MICRO-LAB
(Videotape Self-Critique of Peer Teaching #2)

Name:________________________________________  Date Lesson Taught:_______________

Critique of teaching:  Peer Teaching #2 (Lecture-Discussion) - Due one week after lesson is taught

Please answer the following questions while observing your videotaped performance. The questions are purposely designed to be answered by the tape observance only so you will consciously evaluate yourselves. Remember that the lab is not a true classroom environment, but we'd like you to make it as real as possible. In doing this, you will make your student teaching more effective.

(1) Exactly how long did you teach? Minutes ______________________

(2) Rate yourself using the following variables:

E - Excellent
G - Good
P - Poor
D - Desire Help

a. Enthusiasm __________

b. Developed successful interest approach __________

c. Audible voice __________

d. Right speed of voice __________

e. Use of questions to obtain student participation __________

f. Questions helped students think and reason __________

g. Questions helped students make judgments __________

h. Effectively used instructional technology and visuals __________

i. Effectively used instructional material __________

j. Used stimulus variations at appropriate times during the lesson __________

(3) Now that you've sat in the student's position, how might your interest approach have become more effective? If it was effective, then tell me why you say so.

Continued on Next Page
(4) Did your interest approach and transition lead into and contribute to the lesson content? If yes, tell me how. If not, tell me why.

(5) Did your content follow the order of your objectives? If it didn't, tell me why.

(6) Did you make wise use of instructional time? Tell me why or why not.

(7) Did your conclusion check for student understanding? Did it follow the order of your objectives?

(8) List the areas you feel you need to work on for your next microteaching.
YDAE 440 MICRO-LAB
(Videotape Self-Critique of Peer Teaching #3)

Name:__________________________________________  Date Lesson Taught:_______________

Critique of teaching: Peer Teaching #3 (Middle School) - Due one week after lesson is taught

Please answer the following questions while observing your videotaped performance. The questions are purposely designed to be answered by the tape observance only so you will consciously evaluate yourselves. Remember that the lab is not a true classroom environment, but we'd like you to make it as real as possible. In doing this, you will make your student teaching more effective.

(1) Exactly how long did you teach? Minutes __________________

(2) Rate yourself using the following variables:

E - Excellent
G - Good
P - Poor
D - Desire Help

a. Enthusiasm __________

b. Developed successful interest approach __________

c. Audible voice __________

d. Right speed of voice __________

e. Use of questions to obtain student participation __________

f. Questions helped students think and reason __________

g. Questions helped students make judgments __________

h. Questions helped students analyze problem situations __________

i. Effectively used instructional material __________

j. Effective handled discipline problem(s) __________

k. Used stimulus variations at appropriate times during the lesson __________

(3) Now that you've sat in the student's position, how might your interest approach have become more effective? If it was effective, then tell me why you say so.

Continued on Next Page
(4) Did your interest approach and transition lead into and contribute to the lesson content. If yes, tell me how. If not, tell me why.

(5) Did your content follow the order of your objectives? If it didn't, tell me why.

(6) Did you make wise use of instructional time? Tell me why or why not.

(7) Did your conclusion check for student understanding? Did it follow the order of your objectives?

(8) List the attending behaviors you used as a teacher to prevent discipline problems before they could happen and those you used to handle discipline problems. If they were not effective, tell me why.

(9) List the areas you feel you need to work on for your next microteaching.
YDAE 440 MICRO-LAB
(Videotape Self-Critique of Peer Teaching #4)

Name: __________________________ Date Lesson Taught: ________________

Critique of teaching: Peer Teaching #4 (Problem Solving Lesson, Demonstration/Experiment) -
Due one week after lesson is taught

Please answer the following questions while observing your videotaped performance. The questions are
purposely designed to be answered by the tape observance only so you will consciously evaluate
yourselves. Remember that the lab is not a true classroom environment, but we'd like you to make it as
real as possible. In doing this, you will make your student teaching more effective.

(1) Exactly how long did you teach? Minutes ______________________

(2) Rate yourself using the following variables:

   E - Excellent
   G - Good
   P - Poor
   D - Desire Help

   a. Enthusiasm ________
   b. Developed successful interest approach ________
   c. Audible voice ________
   d. Right speed of voice ________
   e. Developed group objectives correctly ________
   f. Developed problems and concerns correctly ________
   g. Effective handled discipline problem(s) ________
   h. Used stimulus variations at appropriate times during the lesson ________

HINT: Newcomb, McCracken Warmbrod, and Whittington's book may help answer the following:

(3) Now that you've sat in the student's position, how might your interest approach have become more
effective? If it was effective, then tell me why you say so.

Continued on Next Page
(4) Please list the lead questions that were used in developing group objectives. If you didn't develop group objectives why not? (Note: It is an expectation that you develop group objectives).

(5) Describe how you set up (instructional and physically) the experiment/demonstration. Were the students able to see and follow the steps?

(6) Describe your discipline situation. List the attending behaviors you used to prevent problems and the steps you took during and after the discipline situation. Were you satisfied with your actions? Explain why or why not.
1. KNOWLEDGE

Can learners recall information?

Knowledge of:
- specifics, information
- ways or means of dealing with specifics
- the universals and abstractions in a field

You're expecting learners to:
- remember an idea, phenomenon, or a fact in somewhat the same form in which they learned it

Examples: Activities that require the learner to:
- Write (or tell) the formula for the area of a triangle.
- Spell the word "taxonomy."
- List the freedoms included in the Bill of Rights.
- Label the parts of a flower.
- Memorize (or recite) the poem "Auto Wreck."
- Define the following words . . . .

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<tr>
<th>arrange</th>
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2. COMPREHENSION

Can learners explain information?

Comprehension includes:
- transition
- interpretation
- extrapolation

You're expecting learners to:
- communicate information or an idea in a different form (translation)
- grasp the meaning of an idea and be able to explain it or see its relationships (interpretation)
- project the effect of things (extrapolation)

Examples: Activities that require the learner to:
- Reword the Pledge of Allegiance. (translation)
- Explain the meaning of FDR's "Four Freedoms." (interpretation)
- Offer three ways life in prison might change if inmates were allowed to dress as they please. (extrapolation)

<table>
<thead>
<tr>
<th>Examples: Activities that require the learner to:</th>
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<tbody>
<tr>
<td>Translate</td>
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<td>translate</td>
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<tr>
<td>transform</td>
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<td>vary</td>
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3. APPLICATION

Can learners transfer information?

Application includes:
- using abstractions (such as concepts, principles, rules, generalizations) in specific and concrete situations
- apply rules, methods, concepts, principles, laws, theories to new situations
- use what they know (data) from a variety of areas to find solutions to problems
- demonstrate correct usage of a method or procedure

You're expecting learners to:
- Demonstrate how to stay afloat for several hours using only the clothes one is wearing.
- Construct a graph or chart using given data.
- Solve mathematical problems.
- Interview students in class to determine their favorite TV show.

Examples: Activities that require the learner to:
- Demonstrate how to stay afloat for several hours using only the clothes one is wearing.
- Construct a graph or chart using given data.
- Solve mathematical problems.
- Interview students in class to determine their favorite TV show.

<table>
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<tr>
<th>Examples: Activities that require the learner to:</th>
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### 4. ANALYSIS

Can learners separate information?

Analysis of:
- elements
- relationships
- organizational principles

You're expecting learners to:
- break things down into their component parts
- determine the distinguishing factors
- uncover the special characteristics of something

#### Examples: Activities that require the learner to:
- Simplify ballet into its basic movements.
- Inspect a house for poor workmanship.
- Compare and contrast two Presidential addresses.
- Study the painting of "The Last Supper" to uncover as many principles of art as possible.

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### 5. SYNTHESIS

Can learners combine information?

Synthesis includes:
- production of a unique communication
- production of a plan for operation
- derivation of a set of abstract relations

You're expecting learners to:
- think creatively (divergently)
- combine "givens" into a new or original creation
- formulate new patterns or structures

#### Examples: Activities that require the learner to:
- Formulate way to teach concept of adjectives.
- Create a new song for the opening line of "Mary had a Little Lamb."
- Reorganize a chapter or unit from your textbook the way you think it should be.
- Combine elements of drama, music, dance into a stage presentation.

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### 6. EVALUATION

Can learners make judgments?

Evaluation includes:
- judgments in terms of internal evidence
- judgments in terms of external evidence

You're expecting learners to:
- judge the value of material based on definite criteria
- rate ideas, conditions, objects
- accept or reject "things" based on standards

#### Examples: Activities that require the learner to:
- Decide which person would best fill a position.
- Rank the principles of "good sportsmanship" in order of importance to you.
- Award the contract to the best proposal.
- Judge paintings on the basis of specified criteria.

<table>
<thead>
<tr>
<th>accept</th>
<th>decide</th>
<th>recommend</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjudge</td>
<td>decree</td>
<td>referee</td>
</tr>
<tr>
<td>appraise</td>
<td>defend</td>
<td>reject</td>
</tr>
<tr>
<td>assess</td>
<td>editorialize</td>
<td>rule on</td>
</tr>
<tr>
<td>arbitrate</td>
<td>evaluate</td>
<td>select</td>
</tr>
<tr>
<td>award</td>
<td>grade</td>
<td>settle</td>
</tr>
<tr>
<td>censure</td>
<td>judge</td>
<td>support</td>
</tr>
<tr>
<td>choose</td>
<td>justify</td>
<td>umpire</td>
</tr>
<tr>
<td>criticize</td>
<td>prioritize</td>
<td>weigh</td>
</tr>
<tr>
<td>critique</td>
<td>rank</td>
<td></td>
</tr>
<tr>
<td>debate</td>
<td>rate</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>Points awarded</td>
<td>Points possible</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Name of Course and Title of Unit</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Problem Area and Title of Lesson</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Objectives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Situation</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>References and Teaching Aids</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Notes: 5 points awarded for a well-titled course and unit, covering related problems. 2 points awarded for a clearly explained situation. 5 points awarded for complete references and teaching aids.
### Documentation of Competencies and Academic Standards Met by This Lesson

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Documentation of Competencies and Academic Standards is complete and covers SAE, FFA, and the academic subject areas. Sources that document where to find the information is complete.</td>
<td>5</td>
<td>Documentation of Competencies and Academic Standards is not complete. Information on how the lesson relates to the competencies/standards and/or the citations for the information is missing.</td>
<td>0</td>
<td>There is no documentation of Competencies and Academic Standards or the sources for documenting this information.</td>
</tr>
</tbody>
</table>

### Interest Approach

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Motivational technique is detailed and well explained. It is interesting and should be successful. Contains visuals and/or activities.</td>
<td>8</td>
<td>Motivational technique could be better detailed or explained. It is interesting and will probably be successful</td>
<td>6</td>
<td>Motivational technique well detailed or explained but is not particularly interesting or exciting.</td>
</tr>
<tr>
<td>4</td>
<td>Motivational technique is poorly explained or detailed but holds promise of working.</td>
<td>2</td>
<td>Motivational technique is poorly explained or detailed and doubtful of being successful.</td>
<td>0</td>
<td>Motivational technique is missing or inadequate.</td>
</tr>
</tbody>
</table>

### Subject Matter Content

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>The subject matter is included in the lesson plan. It is in outline form, in detail, and is complete.</td>
<td>15</td>
<td>The subject matter is included in the lesson plan. It is adequate in detail and is generally complete</td>
<td>10</td>
<td>The subject matter included in the lesson plan. It lists only the main points. Much is left out.</td>
</tr>
<tr>
<td>8</td>
<td>No subject matter is included in the lesson plan. A complete list of points to be covered is included.</td>
<td>4</td>
<td>No subject matter is included in the lesson plan. A partial list of points to be covered is included.</td>
<td>0</td>
<td>No subject matter is included in the lesson plan. There is no list of points to cover.</td>
</tr>
</tbody>
</table>

### Teaching-Learning Experiences

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>The procedure for teaching the content is outlined in detail. The teaching method(s) to be used is (are) apparent and are appropriate for the lesson and objectives. The procedure for teaching is well thought out and should result in effective learning. Specific lead questions are used.</td>
<td>12</td>
<td>The procedure for teaching the content is outlined adequately. The teaching method(s) to be used is (are) compatible with the objectives and may result in effective learning.</td>
<td>10</td>
<td>The procedure for teaching the content is outlined adequately. However, the teaching method(s) to be used is(are) not well chosen, considering the objectives of the lesson. There are better methods available to meet the objectives.</td>
</tr>
<tr>
<td>6</td>
<td>The procedure for teaching the content is not well planned or organized. The methods mentioned may work but need to be reorganized into a more logical order.</td>
<td>3</td>
<td>The procedure for teaching the content is not well planned or organized. The methods are inappropriate.</td>
<td>0</td>
<td>The teaching-learning experience is totally inadequate or missing.</td>
</tr>
</tbody>
</table>
### Summary Implementation and Evaluation

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>There is a clear plan as to how the teacher will summarize the lesson using an E-Moment exercise and how the students will be evaluated.</td>
</tr>
<tr>
<td>4</td>
<td>There is a plan of sorts as to how the teacher will summarize and evaluate the lesson.</td>
</tr>
<tr>
<td>0</td>
<td>There is no plan.</td>
</tr>
</tbody>
</table>

### The Lesson Plan in General

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Is typed, neat, shows careful work, with correct spelling, punctuation and sentence structure.</td>
</tr>
<tr>
<td>3</td>
<td>Is neat, shows careful work, has a few errors in spelling, punctuation and/or sentence structure.</td>
</tr>
<tr>
<td>1</td>
<td>Is hand written, not neat, or has multiple errors.</td>
</tr>
</tbody>
</table>

### Punctuality

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lesson plan handed in during class on due date.</td>
</tr>
<tr>
<td>0</td>
<td>Lesson plan handed in on day it is due.</td>
</tr>
<tr>
<td>-1</td>
<td>Lesson plan one day late.</td>
</tr>
<tr>
<td>-2</td>
<td>Lesson plan 2 days late.</td>
</tr>
<tr>
<td>-3</td>
<td>Lesson plan 3 days late.</td>
</tr>
</tbody>
</table>

### Length

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Lesson plan can be taught in 2-5 days.</td>
</tr>
<tr>
<td>1</td>
<td>Lesson plan will require &lt; 1 or &gt; 5 days.</td>
</tr>
<tr>
<td>0</td>
<td>Lesson plan length totally inadequate.</td>
</tr>
<tr>
<td>2</td>
<td>Unit plan can be taught in 5-20 days.</td>
</tr>
<tr>
<td>1</td>
<td>Unit plan will require &lt; 5 or &gt; 20 days.</td>
</tr>
<tr>
<td>0</td>
<td>Unit plan length totally inadequate.</td>
</tr>
</tbody>
</table>

### Level

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Lesson plan content and subject is appropriate for indicated students.</td>
</tr>
<tr>
<td>1</td>
<td>Lesson plan content and subject is not appropriate for indicated students.</td>
</tr>
<tr>
<td>0</td>
<td>Content and subject way off.</td>
</tr>
</tbody>
</table>

### Grading

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-90</td>
<td>A</td>
</tr>
<tr>
<td>89-80</td>
<td>B</td>
</tr>
<tr>
<td>79-70</td>
<td>C</td>
</tr>
<tr>
<td>69-60</td>
<td>D</td>
</tr>
<tr>
<td>59-0</td>
<td>F</td>
</tr>
</tbody>
</table>
Name: ____________________________

YDAE 440

S.A.I. Lesson Packet Grade Sheet

1. Cover Page for Each S.A.I. Lesson:
   a. Title of Lesson (2 pts. for each lesson)                      0 1 2 3 4 5 6 7 8 9 10
   b. Instructions (2 pts. for each lesson)                      0 1 2 3 4 5 6 7 8 9 10
   c. Teaching Materials (2 pts. for each lesson)               0 1 2 3 4 5 6 7 8 9 10

2. Attached References or Teaching Material for Each Lesson:        0 3 6 9 12 15

3. Quiz for Each Lesson:                                        0 3 6 9 12 15

4. Teacher’s Lesson Plan for each S.A.I. Lesson:
   a. Lesson Title (2 pts. for each lesson)                      0 1 2 3 4 5 6 7 8 9 10
   b. Teacher Objectives (2 pts. for each lesson)               0 1 2 3 4 5 6 7 8 9 10
   c. Interest Approach (2 pts. for each lesson)                0 1 2 3 4 5 6 7 8 9
      10
   d. Subject Matter Outline (2 pts. for each lesson)           0 1 2 3 4 5 6 7 8 9 10

   Total: ____________

Comments: