

# INSTRUCTIONAL MATERIALS ADOPTION

VENDOR: Thomson/Delmar INSTRUCTIONAL MATERIALS: The Science of Agriculture

SUBJECT: Agriculture Biotechnology COPYRIGHT DATE(S): 2002

## INSTRUCTIONAL MATERIALS ADOPTION: GENERIC EVALUATION CRITERIA

### GROUP II – 2002 TO 2008

SE ISBN 0766816699  
TE ISBN 0766816702

#### R-E-S-P-O-N-S-E-S

| YES | NO | N/A | CRITERIA | NOTES |
|-----|----|-----|----------|-------|
|-----|----|-----|----------|-------|

#### I. INTER-ETHNIC

|     |     |     |   |  |
|-----|-----|-----|---|--|
| ___ | ___ | ___ | 1. The instructional materials meets the requirements of inter-ethnic: concept, content, and illustration, as set by West Virginia Board of Education Policy (Adopted December 1970). |  |
|-----|-----|-----|---|--|

#### II. EQUAL OPPORTUNITY

|     |     |     |  |  |
|-----|-----|-----|--|--|
| ___ | ___ | ___ | 1. The instructional material meets the requirements of "equal opportunity" concept, content, illustration, heritage, roles, contributions, experiences, and achievements of males and females in American and other cultures, as set by West Virginia Board of Education Policy (Adopted May 1975). |  |
|-----|-----|-----|--|--|



I = In-depth  
 A = Adequate  
 M = Minimal  
 N = Nonexistent

**GENERAL CRITERIA**

(Vendor/Publisher)  
 SPECIFIC LOCATION  
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 PRODUCT

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(IMR Committee)  
 RESPONSES

I    A    M    N

**CRITICAL THINKING SKILLS**

Questioning models should include higher order thinking skills to analyze problems and implement solutions.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

**LIFE SKILLS**

Learning activities should be applicable to life skills, including but not limited to: using reference tools, completing an application, interviewing and setting goals.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

**CLASSROOM MANAGEMENT**

1. Learning activities should include opportunities for large, small and cooperative learning groups through panel discussions, peer teaching, and independent learning in a variety of environments both indoor and outdoor.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

2. Engage in active inquiries, investigations and hands-on activities for a minimum of 50 percent of the instructional time to develop conceptual understanding and laboratory skills.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

**INSTRUCTIONAL MATERIALS**

Student materials should include, but not be limited to:

1. Extensive and varied opportunities to practice targeted skills.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

2. Reteaching, practice, and enrichment materials.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

3. Leveled texts that will allow students to read independently (Grades 7-12).

\_\_\_ \_\_\_ \_\_\_ \_\_\_

**ASSESSMENT**

Assessment materials should include, but not be limited to:

1. Practice available in norm referenced, criterion referenced and performance based measures.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

2. Varied assessment techniques (e.g., true/false, multiple choice, short answer) with teacher text indicating test bank answers and additional resources.

\_\_\_ \_\_\_ \_\_\_ \_\_\_

\_\_\_\_\_ Grade

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SUBJECT: \_\_\_\_\_ COPYRIGHT DATE(S): \_\_\_\_\_

SE ISBN: \_\_\_\_\_ TE ISBN: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

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INSTRUCTIONAL MATERIALS ADOPTION: SPECIFIC EVALUATION CRITERIA

**GROUP VI – 2001 to 2007**  
**Agricultural Education**  
**Agricultural Biotechnology**

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**Course Description:** This course of study is designed to provide knowledge, skills and competencies regarding the application of biotechnology to agriculture. This course establishes a basic understanding of biotechnology, genetics, and explores agricultural applications and related careers.

**ORIENTATION TO BIOTECHNOLOGY**

The instructional materials present information in a manner that enables the student to:

- |       |   |     |     |     |     |
|-------|---|-----|-----|-----|-----|
| _____ | 1. Investigate biotechnology and its application to Agriscience.  | ___ | ___ | ___ | ___ |
| _____ | 2. Research the biotechnology industry and provide information regarding future careers in Agriscience and the impact of biotechnology on the consumer and the agricultural industry. | ___ | ___ | ___ | ___ |

**GENETICS AND GENETIC ENGINEERING**

The instructional materials present information in a manner that enables the student to:

- |       |  |     |     |     |     |
|-------|--|-----|-----|-----|-----|
| _____ | 1. Define and apply basic genetic terms.   | ___ | ___ | ___ | ___ |
| _____ | 2. Explain the concept of heritability.  | ___ | ___ | ___ | ___ |
| _____ | 3. Compare and contrast methods of transferring genetic information.                                       | ___ | ___ | ___ | ___ |
| _____ | 4. Explain the concepts dominant and recessive genes and relate these concepts to common heritable traits. | ___ | ___ | ___ | ___ |
| _____ | 5. Explain and illustrate recombinant DNA procedures.  | ___ | ___ | ___ | ___ |

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|       |  |     |     |     |     |
|-------|--|-----|-----|-----|-----|
| _____ | 6. Explore emerging technologies of genetic engineering.   | ___ | ___ | ___ | ___ |
| _____ | 7. Properly and safely manipulate equipment and procedures used in performing genetic engineering tasks. | ___ | ___ | ___ | ___ |

**THE APPLICATION OF BIOTECHNOLOGY TO ANIMAL MANAGEMENT REPRODUCTION**

The instructional materials present information in a manner that enables the student to:

|       |  |     |     |     |     |
|-------|--|-----|-----|-----|-----|
| _____ | 1. Apply the principles of biotechnology to animal selection.  | ___ | ___ | ___ | ___ |
| _____ | 2. Apply the principles of biotechnology to animal health.   | ___ | ___ | ___ | ___ |
| _____ | 3. Apply the principles of biotechnology to the management of animal waste.                              | ___ | ___ | ___ | ___ |
| _____ | 4. Describe the purpose and procedures of artificial insemination and embryo transfer in animal science. | ___ | ___ | ___ | ___ |
| _____ | 5. Investigate and discuss the application of biotechnology to estrus manipulation                       | ___ | ___ | ___ | ___ |
| _____ | 6. Explore developments in biotechnology regarding gender selection.                                     | ___ | ___ | ___ | ___ |

**THE APPLICATION OF BIOTECHNOLOGY TO PLANT PROPAGATION, GROWTH, AND DEVELOPMENT**

The instructional materials present information in a manner that enables the student to:

|       |  |  |  |  |  |
|-------|--|--|--|--|--|
| _____ | 1. Provide information relative to the design and operation of biotechnology experiments involving sexual and asexual plant propagation. |  |  |  |  |
| _____ | 2. Compare and contrast various tissue culturing techniques.   |  |  |  |  |
| _____ | 3. Discuss the effects of biotechnology on plant growth.   |  |  |  |  |

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**ETHICAL QUESTIONS CREATED BY  
 BIOTECHNOLOGY**

The instructional materials present information in a manner  
 that enables the student to:

1. Examine ethical questions raised by biotechnology.

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