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National Science Resources Center

NSRC EVALUATION CRITERIA FOR CURRICULUM MATERIALS
adapted from *Resources for Teaching Elementary School Science*

Criteria for Identification of Research-Based Curriculum

The following questions are selected from the NSRC Evaluation criteria for Curriculum Materials. The complete evaluation instrument was used to identify elementary science curriculum materials for inclusion in *Resources for Teaching Elementary School Science*.

CRITERIA	RATING		
PEDAGOGY			
I. DOES THE MATERIAL ADDRESS THE IMPORTANT GOALS OF ELEMENTARY SCIENCE TEACHING AND LEARNING?			
1. Does the material focus on concrete experiences by the children with science phenomena?	Yes	No	NA
2. Does the material enable children to investigate important science concepts in depth over an extended period of time (core materials only)?	Yes	No	NA
3. Does the material contribute to the development of scientific reasoning and problem-solving skills?	Yes	No	NA
4. Are assessment strategies aligned with the goals for instruction?	Yes	No	NA
5. Will the suggested assessment strategies provide an effective means of assessing student learning?	Yes	No	NA
II. DOES THE MATERIAL FOCUS ON INQUIRY AND ACTIVITY AS THE BASIS OF LEARNING EXPERIENCES?			
1. Does the material engage students in the processes of science?	Yes	No	NA
2. Does the material provide opportunities for students to make and record their own observations?	Yes	No	NA
3. Does the material provide opportunities to gather and defend their own evidence?	Yes	No	NA
III. ARE THE MODES OF INSTRUCTION DEVELOPMENTALLY APPROPRIATE?			
1. Does the material present a logical sequence of related activities that will help students build conceptual understanding over several lessons?	Yes	No	NA
2. Are opportunities included to assess children's prior knowledge and experiences?	Yes	No	NA
3. Do the suggested student activities develop critical thinking and problem-solving skills?	Yes	No	NA

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CRITERIA	RATING		
SCIENCE CONTENT AND PRESENTATION			
I. SCIENCE CONTENT			
1. Is the science content incorporated in the materials accurately represented?	Yes	No	NA
2. Is the science content consistent with current scientific knowledge?	Yes	No	NA
3. Do the suggested investigations lead to an understanding of basic principles?	Yes	No	NA
II. SCIENCE PRESENTATION			
1. Is the writing style interesting and engaging, while respecting scientific language?	Yes	No	NA
2. Is vocabulary used to facilitate understanding rather than as an end in itself?	Yes	No	NA
ORGANIZATION AND FORMAT, MATERIALS, AND EQUITY			
I. ORGANIZATION AND FORMAT			
1. **Teacher Materials:** Does the background material for the teacher provide sufficient information on the scientific content?	Yes	No	NA
2. **Teacher Materials:** Does the background material for the teacher provide sufficient information on common student misconceptions?	Yes	No	NA
3. **Teacher Materials:** Are the directions on implementing activities clear?	Yes	No	NA
4. **Student Materials:** Are the written materials for the students well-written, age-appropriate, and compelling in content?	Yes	No	NA
II. HANDS-ON MATERIALS, EQUIPMENT, AND SUPPLIES			
1. **Teacher Materials:** Is a master source list of materials provided?	Yes	No	NA
2. **Student Materials:** Are the materials recommended for use appropriate for the designated age levels?	Yes	No	NA
3. **Student Materials:** Are instructions on manipulating laboratory equipment and materials clear and adequate?	Yes	No	NA
4. **Student Materials:** Are appropriate safety precautions included, where needed?	Yes	No	NA
III. EQUITY ISSUES			
1. Is the material free of cultural, racial, ethnic, gender, and age bias?	Yes	No	NA

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Middle School Science Instructional Materials Review Form

The following questions are selected from the NSRC Evaluation criteria for Curriculum Materials. The complete evaluation instrument was used to identify middle school science curriculum materials for inclusion in *Resources for Teaching Middle School Science*.

CRITERIA	RATING		
PEDAGOGY			
I. DOES THE MATERIAL ADDRESS THE IMPORTANT GOALS OF MIDDLE SCHOOL SCIENCE TEACHING AND LEARNING?			
1. Does the material focus on engaging students in concrete experiences with science phenomena?	Yes	No	NA
2. Does the material enable students to investigate important science concepts in depth over an extended period of time? (Especially necessary for core materials.)	Yes	No	NA
3. Does the material contribute to the development of scientific reasoning and problem-solving skills?	Yes	No	NA
4. Are assessment strategies aligned with the goals for instruction?	Yes	No	NA
5. Will the suggested assessment strategies provide an effective means of assessing student learning?	Yes	No	NA
II. DOES THE MATERIAL FOCUS ON INQUIRY AND ACTIVITY AS THE BASIS OF LEARNING EXPERIENCES?			
1. Does the material engage students in the processes of science?	Yes	No	NA
2. Does the material engage students in planning and conducting scientific investigation?	Yes	No	NA
3. Does the material provide opportunities to gather data and defend their own evidence?	Yes	No	NA
III. ARE THE MODES OF INSTRUCTION DEVELOPMENTALLY APPROPRIATE?			
1. Does the material present a logical sequence of related activities that will help students build conceptual understanding over several lessons?	Yes	No	NA
2. Does the suggested instructional sequence take into account students' prior knowledge and experiences?	Yes	No	NA
3. Do the suggested student activities develop critical thinking and problem-solving skills?	Yes	No	NA

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NSRC EVALUATION CRITERIA FOR CURRICULUM MATERIALS
adapted from *Resources for Teaching Middle School Science*

CRITERIA	RATING		
SCIENCE CONTENT AND PRESENTATION			
I. SCIENCE CONTENT			
1. Is the science content incorporated in the materials accurately represented?	Yes	No	NA
2. Do the suggested investigations lead to an understanding of basic concepts and principles of science?	Yes	No	NA
3. Is the science content consistent with current scientific knowledge?	Yes	No	NA
II. SCIENCE PRESENTATION			
1. Is the writing style interesting and engaging, while respecting scientific language?	Yes	No	NA
2. Is vocabulary used to facilitate understanding rather than as an end in itself?	Yes	No	NA
ORGANIZATION AND FORMAT, MATERIALS, AND EQUITY			
I. ORGANIZATION AND FORMAT			
1. **Teacher Materials:** Does the background material provide sufficient information for the teacher on the scientific content?	Yes	No	NA
2. **Teacher Materials:** Does the background material provide sufficient information on common student misconceptions?	Yes	No	NA
3. **Teacher Materials:** Are the directions for conducting laboratory activities and investigations clear?	Yes	No	NA
4. **Student Materials:** Are the print materials for students well-written, age-appropriate, and compelling in content?	Yes	No	NA
5. **Student Materials:** Is the overall readability of the materials appropriate for middle school students?	Yes	No	NA
6: **Textbooks:** Are major concepts, principles, and ideas adequately developed?	Yes	No	NA

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CRITERIA	RATING		
ORGANIZATION AND FORMAT, MATERIALS, AND EQUITY, cont.			
II. HANDS-ON MATERIALS, EQUIPMENT, AND SUPPLIES			
1. Are instructions on manipulating laboratory equipment and materials clear and adequate?	Yes	No	NA
2. Is a list of materials included for each activity?	Yes	No	NA
3. Are appropriate safety precautions included?	Yes	No	NA
III. EQUITY ISSUES			
1. Is the material free of cultural, racial, ethnic, gender, and age bias?	Yes	No	NA
2. Are appropriate strategies included to address the diversity of middle school students' needs, experiences, and backgrounds?	Yes	No	NA