

ANCHORAGE SCHOOL DISTRICT
ANCHORAGE, ALASKA

ASD MEMORANDUM #258 (2002-2003)

May 12, 2003

TO : SCHOOL BOARD
FROM: OFFICE OF THE SUPERINTENDENT
SUBJECT: SCIENCE KIT CHANGES FOR GRADES 4 - 6

RECOMMENDATION:

It is the Administration's recommendation that the School Board approve changes to the kit titles in the science framework at grades four through six (Attachment A). These changes will align the unit's connection to state and national standards and increase the strong articulation of K-12 curriculum in the life, physical, and earth sciences. These changes include:

Fourth Grade

Replace Variables (FOSS) with Circuits and Pathways (Insights) and Dynamic Earth (ASD) with Earth Materials (FOSS).

Fifth Grade

Replace Food Chemistry (NSRC) with Ecosystems (NSRC), Levers and Pulleys (FOSS) with Variables (FOSS), and Circuits and Pathways (Insights adapted) with Exploring Energy (Harvard-Smithsonian).

Sixth Grade

Replace Ecosystems (NSRC) with one of four possible choices currently being field-tested. These are There is No Away (Insights), Micro-Worlds (NSRC), Body Systems (Insights), and Food and Nutrition (FOSS).

PERTINENT FACTS:

All materials used in the Anchorage School District are reviewed and revised on a cyclical basis. The current ASD K-6 framework and kits were adopted in February 1995. The aim of the curriculum review process is to assure that the framework continues to meet the needs of students and teachers and aligns with both state and national standards. Over the past two school years, teams of teachers, parents, and community scientists working with the elementary science

teacher experts have been reviewing the current science units, surveying teachers, field testing kits, and developing recommendations.

Criteria used during the curriculum review process included:

- unit's connection to state and national standards;
- strong articulation of K-12 curriculum in the life, physical, and earth sciences;
- unit's connection to grade level focus;
- unit's use of best practices;
- connections made to reading, writing, and math within the unit;
- grade level appropriateness of units; and
- assessments within the unit to guide instruction.

Rationale for Changes in ASD K-12 Science Framework:

Placing Circuits and Pathways at fourth grade gives that grade level a developmentally appropriate unit of study in Physical Science that meshes well with the focus of "Systems". The insertion of Earth Materials creates a stronger spiral in the Earth Sciences. This unit covers concepts and skills not introduced elsewhere at K-6 that will be needed when the students move to middle and high school.

Since 1995, new kits have become available from national education resource centers. These include the Harvard-Smithsonian ARIES kits, one of which (Exploring Energy) is being recommended for fifth grade. This unit improves the development of the focus "Energy Flows". Moving Circuits and Pathways and replacing it with Exploring Energy in the earth science strand will provide fifth grade students with a life, physical, and earth science experience. We have recommended moving Ecosystems from sixth grade to fifth. This kit change improves the connection to the grade level focus of "Energy Flows" and was developed for fifth grade. Variables (FOSS) is designed for fifth/sixth grade, but was being used with fourth grade students. Classroom assessments and anecdotal records have shown that this kit is not developmentally appropriate for fourth graders. We are field-testing Variables (FOSS) at fifth grade.

These changes strengthen the K-6 framework, but leave a gap at sixth grade in the life science strand. We are field testing There is No Away (Insights), Micro-Worlds (NSRC), Body Systems (Insights), and Food and Nutrition (FOSS) to find an appropriate unit that fits the grade level focus, "Scale and Structure".

The changes listed here have been thoroughly discussed and approved by the Science Curriculum Committee. The information has also been reviewed by the Minority Education Concerns Committee (MECC), elementary principals and Patricia McRae, Executive Director of Elementary Education.

Attachment

CC/JC/TGR

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Approved by: Jan Christensen, Assistant Superintendent, Instruction