

ANCHORAGE SCHOOL DISTRICT
ANCHORAGE, ALASKA

ASD MEMORANDUM #278 (1999-2000)
2000

May 22,

TO : SCHOOL BOARD

FROM: OFFICE OF THE SUPERINTENDENT

SUBJECT: HIGH SCHOOL FRAMEWORKS – BIOLOGICAL SCIENCES,
EARTH SCIENCES, CONCEPTUAL CHEMISTRY,
CONCEPTUAL PHYSICS

RECOMMENDATION:

It is the Administration's recommendation that the School Board approve the attached High School Science Frameworks – Biological Sciences, Earth Sciences, Conceptual Chemistry, and Conceptual Physics. These will be added to the Science Frameworks Document that has already been approved by the School Board.

PERTINENT FACTS:

The High School Science Frameworks – Biological Sciences, Earth Sciences, Conceptual Chemistry, and Conceptual Physics documents are the culmination of work during this year. These four courses are the conceptual courses taught as an alternative to Biology I, Geology I, Chemistry I and Physics. They are taught where math levels are not barriers and where real world applications are a strength. Biological Sciences and Earth Sciences are both semester courses, whereas Conceptual Chemistry and Conceptual Physics are both year-long courses.

References used have been Benchmarks for Science Literacy, American Association for the Advancement of Science, 1995; the National Science Education Standards, National Research Council, 1996 (there is a 95 percent correlation between the two documents); as well as Alaska Standards, Content Standards for Alaska Students. Several other books have been used in developing philosophies that went into the decisions made for science restructuring efforts. It should be noted that committee members have had the documents readily available. These documents cite research and are

developmentally appropriate for each course. It must be stressed that the references were used only so far as to support and localize the philosophy and content for the Anchorage School District. This framework has been reviewed many times by teachers, departments, scientists and community members.

As a note on reading the document, recognize that the center column of the content frameworks represent examples of what students should be able to do. This column could have an infinite number of ideas. It is meant to help teachers and to help clarify the concept for any reader. The section would be an ideal place to add integration of reading, writing, and mathematics into science curricular fields. Hopefully, this document will prove useful to librarians and teachers in the selection of ancillary materials to support the curriculum. This document is based on current educational research, presenting frameworks rich in scientific process, and hands-on approaches to learning. In addition, please note that these frameworks will be added to the more complete document with the same title, which has been before the board for approval at intervals over the past several years.

This framework has been reviewed many times by teachers, departments, scientists and community members. The frameworks have been presented to and received favorably by both the Student Advisory Board and by the Anchorage Council of PTAs Executive Board. They have been presented to high school principals and curriculum principals in writing and no comments or concerns have come forth.

BC/CC/FS/DY

Attachment

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