

Implementing the High School Science Standard

The high school standard was written for complete high school courses of Biology, Chemistry, Physics, and Earth/Space science; only two years of high school science are required under Arizona law.

Because there is no state-wide mandated sequence of high school science courses, the two-year sequence of high school science courses must include the following 3 criteria:

1. a life science/biology course that teaches Strands 1, 2, 3, and 4; this course must be completed in either the freshman or sophomore year;
2. a second science course (Chemistry, Physics, Earth/Space Science, General Science, etc.) that teaches Strands 1-3, plus the appropriate concepts and performance objectives from Strand 5 and/or Strand 6;
3. the 18 performance objectives from Strands 5 and 6 that were formerly asterisked for potential testing purposes. For districts that require three years of science for high school graduation, these performance objectives can be distributed across the three years or required science courses.

Strand 5:

SCHS-S5C1-01
SCHS-S5C1-02
SCHS-S5C1-03
SCHS-S5C1-06
SCHS-S5C2-01
SCHS-S5C2-05
SCHS-S5C3-01

SCHS-S5C3-02
SCHS-S5C3-03
SCHS-S5C3-07
SCHS-S5C4-01
SCHS-S5C4-02
SCHS-S5C5-01

Strand 6:

SCHS-S6C1-05
SCHS-S6C2-01
SCHS-S6C2-02
SCHS-S6C2-03
SCHS-S6C4-01

These performance objectives were identified by the Science Standard Articulation Committee because they were broad enough to be incorporated into any two-year sequence of science courses.

For example, Strand 5, Concept 1, POs 1 and 2 "Describe substances based on their physical properties." and "Describe substances based on their chemical properties." could easily be taught within the context of Biology, Chemistry, Physics, Earth/Space science, or general science.

Strand 6, Concept 2, PO1 "Describe the flow of energy to and from the Earth." may be appropriate to teach in Biology, Physics, Earth/Space Science, or General Science.

The intent is to have students take a two-year science sequence that includes biology and a second science course, with the additional 18 specified performance objectives embedded into biology and/or the second science course, and taught in the context of the material in those courses. The intent is NOT to have students take a biology class plus a class consisting of only the 18 specified performance objectives from Strands 5 and 6.

For example, if a district's two-year sequence of courses includes Biology and Chemistry, students would learn Strands 1-4 (and any of the applicable performance objectives listed in #3 above) during biology, and would learn Strands 1-3, the chemistry related concepts and POs in Strand 5, and the remaining performance objectives listed in #3 above not taught during biology.

If a district's sequence of courses includes general science and Biology, students would learn Strands 1-4 (and any of the applicable performance objectives listed in #3 above) during biology, and would learn Strands 1-3, the concepts and POs in Strand 5 and/or Strand 6 that are included in the General Science curriculum, and the remaining performance objectives listed in #3 above not taught during biology.

** The Science AIMS will test only content from Strands 1-4 and not the concepts or performance objectives from Strands 5 or 6.