

Revised Academic Content Standards for Science and Model Curriculum Frequently Asked Questions

1. Why are the Revised Content Standards for Science and Model Curriculum found in one document?

- The model curriculum contains the science processes, science applications/skills, and the engineering and technology components of science. These cannot be taught in isolation and are considered to be part of the standards document.

2. What does the Model Curriculum include?

- The Model Curriculum includes Content Elaboration; Expectations for Learning with associated cognitive demands; Visions into Practice, which provide examples for the classroom; Instructional Strategies and Resources; Common Misconceptions, and Diverse Learner Strategies. The Model Curriculum embeds scientific inquiry, engineering and technological design, and science applications, processes and skills with content.

3. When will the revised standards be implemented?

- The revised standards will not go into effect immediately. Implementation must be transitional because the assessments for the revised standards and model curriculum are still in development. It will take several years to create new assessments for science.
- Curriculum directors and science teachers need adequate time to plan, design and develop district curriculum maps based on the revised standards and model curriculum. This plan may include professional development to ensure depth of knowledge in the required content areas.

4. When should the full transition of the revised standards and model curriculum take place?

- Full transition should occur in 2013-2014. Currently, it is anticipated that the first administration of any new assessment would occur during the same period. There will be a phase-in period as the new assessments are developed.

5. When will new assessments be developed?

- Development of the new assessments is underway. The phase-in period for new assessments has not yet been determined.

6. Are the revised science education standards aligned to national standards?

- The revised standards are aligned with the current National Science Education Standards, Project 2061, and recommendations from professional organizations such as National Science Teachers Association.
- The revised standards also are aligned with the science standards of countries that consistently and significantly outperform the United States on international assessments of student performance in science.
- Ohio Department of Education (ODE) Science staff has been keeping abreast of the development of the National Research Council's National Science Framework to be published July 19, 2011. ODE staff also will be engaged with the development of the subsequent science standards based upon the Framework that are to be published mid-2012 so that Ohio's revised standards are consistent with national grade-band alignments and trends.

7. What can be done in the short term?

- Become familiar with the revised standards and model curriculum documents.
- Try using some of the strategies, resources or classroom examples found in the model curriculum that aligns with what is being taught now.
- Use inquiry-based instruction from Pre-K through high school. A primer on scientific inquiry is found on ODE's Science page.
- Develop students' ability to use scientific inquiry.
- Use resources that connect the science in the classroom to the outside world, adding relevance to what is being taught. Introduce technological and engineering design and science processes as ways to model and apply science.
- Develop lessons using the learning cycle (the 5Es) which is part of the Standards Based Education model on ODE's Science page.