

Middle Level Science Curriculum Framework Overview

Students' curiosity concerning natural phenomena and their need to experience a variety of disciplines and content provide the context for science instruction at the middle level. Students develop an understanding of scientific processes and content through a hands-on, minds-on approach that allows them to act as scientists. In the middle grades, students use observation and classification of natural phenomena to predict, infer, measure and record results. As a follow-up, students evaluate experimental results and develop a rationale for particular outcomes; e.g. science fair projects, class experiments. The application of experimental outcomes to authentic situations is also a major factor in middle level science instruction. In Fayette County Public Schools' Curriculum Framework, the Demonstrators from Academic Expectations and bullets of Core Content for Assessment have been edited to reflect this developmentally appropriate continuum of learning. Since scientific inquiry is assessed in the context of physical, earth/space, and life sciences content, scientific inquiry must be interwoven within the middle level students' science experience.

The content is divided into three basic discipline areas: Physical, Earth and Space, and Life Sciences. The content is arranged in a sequence that allows for connections to be made to other content areas through integrated units of study. The sequence is also mindful of seasonal change to provide opportunities for authentic scientific investigation. Each level in the middle school program must cover elements of content and process in order to prepare students for mastery of comprehensive science concepts to be assessed at grade seven. Additionally, content for grade eight is aligned using the Core Content for Assessment and Program of Studies as defined for the high school level.

Term	Definition
Academic Expectations A E	From <i>Transformations: Kentucky's Curriculum Framework</i>
Demonstrators	Examples of ways students can exhibit conceptual learning
Core Content for Assessment (i.e., SC-E-1.3.3)	SC—Science E—Elementary Content Category Number—1 (Physical Science), 2 (Earth Science), 3 (Life Science) Group Category Number—Similar Core Content is bundled into groups Item Number—Item number within a group
Program of Studies (e.g., POS-S-4-PS-7)	POS—Program of Studies S—Science Level—P (Primary), 4 (4 th Grade), 5 (5 th Grade) Content Category—PS (Physical Science), ESS (Earth and Space Science), LS (Life Science) Item Number—Item number within a category