

The ACT Aspire Science Tests focus on the assessment of science practices using real-world scientific scenarios. The scenarios in the upper grade assessments (like the early high school test used for the TJHSST Exam) include student investigations, formal scientific research, formal scientific data from references, and students or scientists providing competing explanations for real scientific phenomena.

The Science Aspire test is composed of 35 multiple choice and 5 constructed response questions.

The content of the tests includes material from biology (life sciences at the earlier grades), chemistry and physics (physical science at the earlier grades), and Earth/space sciences (for example, geology, astronomy, and meteorology). **Advanced knowledge in these areas is not required, but background knowledge acquired in general, introductory science courses may be needed to answer some of the questions in the upper grade assessments.** The tests do not, however, sample specific content knowledge with enough regularity to make inferences about a student's attainment of any broad area, or specific part, of the science content domain.

The ACT Aspire tests stress science practices over recall of scientific content, complex mathematics skills, and reading ability. To that end, the ACT Aspire Science Tests assess science practices in three domains: *Interpretation of Data*; *Scientific Investigation*; and *Evaluation of Models, Inferences, and Experimental Results*.

### **Interpretation of Data**

Manipulate and analyze scientific data presented in tables, graphs, and diagrams (e.g., recognize trends in data, translate tabular data into graphs, interpolate and extrapolate, and reason mathematically).

### **Scientific Investigation**

Understand experimental tools, procedures, and design (e.g., identify variables and controls) and compare, extend, and modify experiments (e.g., predict the results of additional trials).

### **Evaluation of Models, Inferences, and Experimental Results**

Judge the validity of scientific information and formulate conclusions and predictions based on that information (e.g., determine which explanation for a scientific phenomenon is supported by new findings).

Our science sessions will meet 8 times during the comprehensive class. We will begin focusing on specific skills from the three domains being tested. Then, we will proceed with practice using passages that are leveled for EHS ACT Aspire Test.