

TEXAS ASSESSMENT OF KNOWLEDGE AND SKILLS (TAKS)

BLUEPRINT FOR GRADE 11 EXIT LEVEL SCIENCE

Objectives	Number of Items
1—Nature of Science	17
2—Organization of Living Systems	8
3—Interdependence of Organisms	8
4—Structures and Properties of Matter	11
5—Motion, Forces, and Energy	11
Total number of items	55

Curriculum Rationale

Objective 1: Scientific Processes and Skills

Objective 1 focuses on an understanding of scientific processes and includes design of investigations, accurate data collection, the use of models to represent the natural world, and data analysis. Because an understanding of the nature of science is critical to scientific literacy, this objective is given slightly more emphasis (17 items) than the other four objectives.

Objectives 2 and 3: Biology Concepts

Since biology is usually a freshman or sophomore level class and the exit level assessment is not given until the end of eleventh grade, fewer items (8) will focus on Objectives 2 and 3 (biology). Students are less likely to remember the finer details of biological concepts two years after taking the course and, therefore, will have less of an opportunity to accurately demonstrate their knowledge.

Objectives 4 and 5: Integrated Physics and Chemistry Concepts

Even though the test is based on student expectations from Integrated Physics and Chemistry (IPC) and biology, course sequences for high schools are not mandated by the state. Therefore, the blueprint takes into account the recommended high school program sequence of biology, chemistry, and then physics. Since students will likely be completing this program by the end of eleventh grade, Objectives 4 and 5 (chemistry and physics) have more items (11) than Objectives 2 and 3 (biology).

A 55-item science test will provide an accurate snapshot of students' understanding of IPC and biology concepts and skills.