

# State of Texas Assessments of Academic Readiness (STAAR™) Assessing Process Skills

As part of the effort to provide a clearly articulated assessment program that focuses on fewer skills and addresses those skills in a deeper manner, the Texas Education Agency (TEA) is changing the way process skills are assessed on all social studies tests, all science tests, and grades 3–8 mathematics tests. For the STAAR program, process skills in social studies, science, and mathematics will be assessed in context, not in isolation, which will allow for a more integrated and authentic assessment of these content areas. Process skills will be incorporated into test questions and reported along with content skills under the content reporting categories. Process skills will not be listed under a separate reporting category as was done previously with the Texas Assessment of Knowledge and Skills (TAKS) program. TEA will report both content and process student expectations for test questions that address a content skill and incorporate a process skill. Tests will have a minimum percent of questions that include both content and process skills. More detailed information about assessing process skills in social studies, science, and mathematics is provided below.

## STAAR Social Studies Assessments

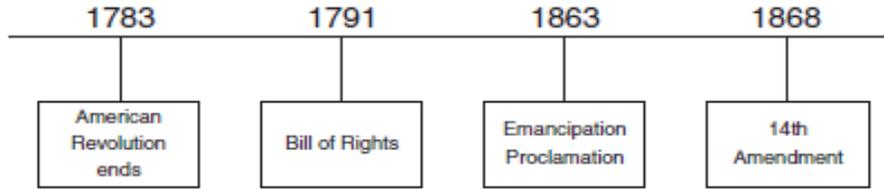
The student expectations addressing **social studies skills** remain part of the TEKS for social studies at all grade levels. In the new STAAR social studies assessments, there is not a separate reporting category for process skills similar to TAKS objective 5. Instead, these skills will be incorporated into at least 30% of the test questions from the content reporting categories and will be reported along with the content standards.

Examples of a few of the process skills included in the **social studies skills** strand of the TEKS are listed below.

- (WH.30) **Social studies skills.** The student communicates in written, oral, and visual forms. The student is expected to  
(C) interpret and create written, oral, and visual presentations of social studies information.
- (US.29) **Social studies skills.** The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to  
(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing and contrasting, finding the main idea, summarizing, making generalizations, making predictions, drawing inferences, and drawing conclusions.
- (8.29) **Social studies skills.** The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology. The student is expected to  
(D) identify points of view from the historical context surrounding an event and the frame of reference which influenced the participants.

Test Question from Grade 8 Social Studies

Use the diagram and your knowledge of social studies to answer the following question.



What conclusion can be drawn from the diagram above?

- A\* *The United States was becoming increasingly concerned with individual liberties.*
- B *The United States was becoming increasingly isolated from foreign affairs.*
- C *The United States increasingly limited opportunities for minorities.*
- D *The United States increasingly feared the creation of a strong central government.*

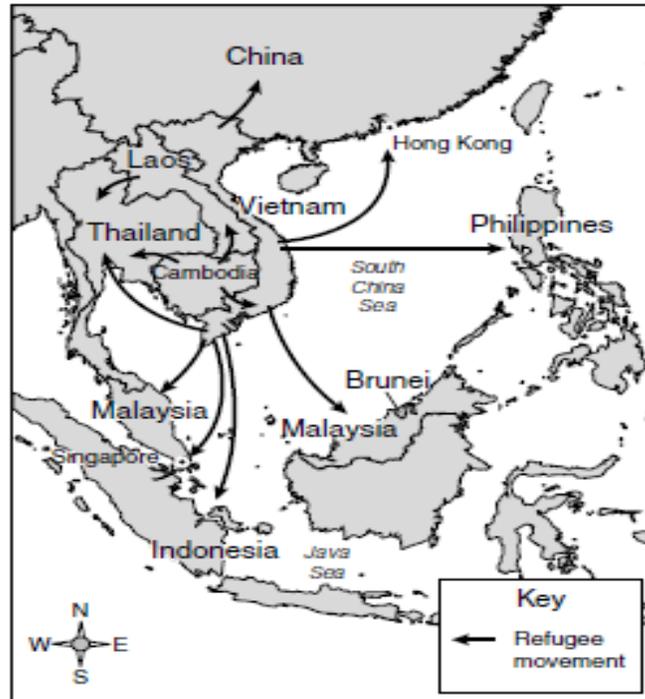
This test question addresses

Content: 8.15D, analyze how the U.S. Constitution reflects the principles of limited government, republicanism, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights

Process: 8.29B, analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions

Test Question from High School Social Studies

**Movement of  
Southeast Asian Refugees  
1975–1995**



Source: UN High Commission for Refugees

The movement of Southeast Asian refugees between 1975 and 1995, as shown in the map above, was a direct result of —

- A the spread of capitalism in the region
- B\* political upheaval in Vietnam and Cambodia
- C numerous job opportunities in the Philippines
- D destructive floods in Cambodia and Laos

This test question addresses

- Content: G.18A, analyze cultural changes in specific regions caused by migration, war, trade, innovation and diffusion
- Process: G.21C, create and interpret different types of maps to answer geographic questions, infer relationships, and analyze change

## STAAR Science Assessments

The student expectations addressing **scientific processes** remain part of the TEKS for science at all grade levels. In the new STAAR science assessments, there is not a separate reporting category for process skills similar to TAKS objective 1. Instead, these skills will be incorporated into at least 40% of the test questions from the content reporting categories and will be reported along with the content standards.

Examples of a few of the process skills included in the **scientific processes** strand of the TEKS for science are listed below.

- (B.1) **Scientific processes.** The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to  
(A) demonstrate safe practices during laboratory and field investigations.
- (P.2) **Scientific processes.** The student uses a systematic approach to answer scientific laboratory and field investigative questions. The student is expected to  
(E) design and implement investigative procedures, including making observations, asking well-defined questions, formulating testable hypotheses, identifying variables, selecting appropriate equipment and technology, and evaluating numerical answers for reasonableness.
- (8.2) **Scientific investigation and reasoning.** The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to  
(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers.
- (5.3) **Scientific investigation and reasoning.** The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to  
(B) evaluate the accuracy of the information related to promotional materials for products and services such as nutritional labels.

### Test Question from Grade 5 Science



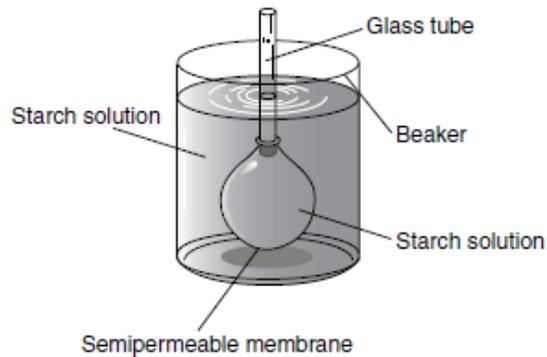
*The drawing shows a model of the Earth, moon, and sun system made from foam balls. What is one way to make this model more accurate?*

- A *Use wooden blocks instead of foam balls*
- B\* *Make the sun larger than the Earth and the moon smaller*
- C *Move the sun closer to the Earth*
- D *Change the order of the foam balls to be moon, sun, Earth*

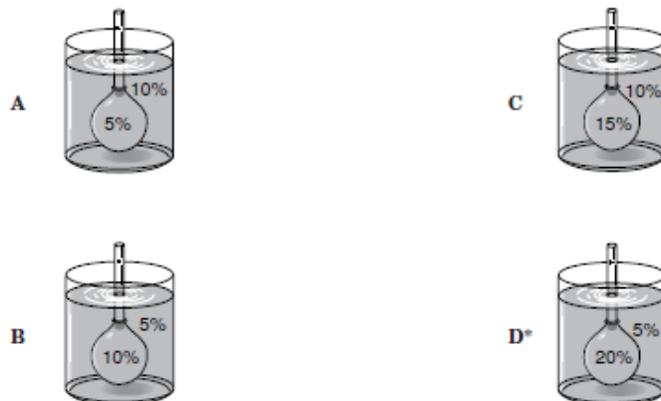
This test question addresses

- Content: 5.8D, identify and compare the physical characteristics of the Sun, Earth, and Moon
- Process: 5.3C, draw or develop a model that represents how something works or looks that cannot be seen such as how a soda dispensing machine works

Test Question from High School Science



The illustration above shows a cell model with starch solutions both inside and outside the cell. In which of the following situations will the solution rise highest in the tube?



This test question addresses

Content: B.4B, investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules

Process: B.2E plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology

## STAAR Mathematics Assessments for Grades 3–8

The student expectations addressing **underlying processes and mathematical tools** remain part of the TEKS for mathematics in grades 3–8. In the new STAAR mathematics assessments for grades 3–8, there is not a separate reporting category for process skills similar to TAKS objective 6. Instead, these skills will be incorporated into at least 75% of the test questions from the content reporting categories and will be reported along with the content standards.

Examples of a few of the process skills included in the **underlying processes and mathematical tools** strand of the TEKS for grades 3–8 mathematics are listed below.

- (8.14) **Underlying processes and mathematical tools.** The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to (A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.
- (6.11) **Underlying processes and mathematical tools.** The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.
- (4.15) **Underlying processes and mathematical tools.** The student communicates about Grade 4 mathematics using informal language. The student is expected to (B) relate informal language to mathematical language and symbols.
- (3.16) **Underlying processes and mathematical tools.** The student uses logical reasoning. The student is expected to (A) make generalizations from patterns or sets of examples and nonexamples.

### Test Question from Grade 3 Mathematics

*Melissa had some money in her purse when she went to the mall with her mother. She spent \$5 on a book. Then her mother gave her \$10. After Melissa spent \$2 on a snack, she had \$23 in her purse. How much money did Melissa have in her purse when she first went to the mall? Mark your answer.*

- A     \$26
- B     \$17
- C\*    \$20
- D     \$6

This test question addresses

- Content: 3.3B, select addition or subtraction and use the operation to solve problems involving whole numbers through 999
- Process: 3.14C, select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem

Test Question from Grade 5 Mathematics

*There are 319 students who volunteered to work at a craft fair. An equal number of volunteers came from each of 4 grade levels. About how many volunteers came from each grade level?*

- A 100
- B\* 80
- C 325
- D 40

This test question addresses

Content: 5.4A, use strategies, including rounding and compatible numbers to estimate solutions to addition, subtraction, multiplication, and division problems

Process: 5.14B, solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

Additional examples of test questions that assess content and incorporate process skills from the TEKS will be provided in the future.