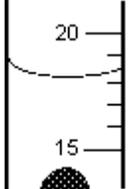
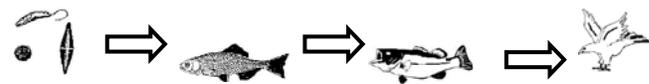


**Science I TEKS Correlation**

TEKS	Sample Questions
<p><b>(1) Scientific investigation and reasoning.</b> The student, for at least 40% of the instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:</p>	<p>When heating liquids in a test tube over a burner, what safety equipment does each student need?</p> <p>A. eyewash, apron, tongs            *B. goggles, apron, tongs            C. fire extinguisher, goggles            D. eyewash, goggles, fire blanket</p>
<p><b>(2) Scientific investigation and reasoning.</b> The student uses scientific practices during laboratory and field investigations. The student is expected to:</p>	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  </div> <div style="flex: 2;"> <p>Which best describes the following graphic?</p> <p>A. Qualitative data            B. Inference            *C. Quantitative data            D. Hypothesis</p> <p>What is the SI unit of mass?</p> <p>A. Pound                      B. Ton            C. Centigram                *D. Kilogram</p> <p>A student heats 50 mL of water and places it in a beaker. He then places a sugar cube in the heated water and records the temperature of the water every minute for ten minutes. In this experiment, what does the temperature represent?</p> <p>A control            B independent variable            *C dependent variable            D responsive variable</p> </div> </div>
<p><b>(3) Scientific investigation and reasoning.</b> The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</p>	<p>Which of the following questions can not be answered using the scientific method?</p> <p>*A. Are roses more beautiful than daisies?            B. What are some of the effects of acid rain on trees?            C. How many kinds of trees are there in Oklahoma?            D. Which brand of paper towel absorbs the most liquid?</p> <p>Bacteria can reproduce by dividing in half. An antibiotic that kills the parent will also kill the offspring because:</p> <p>A. all bacteria are killed by antibiotics            B. the offspring have not had enough time to become resistant            *C. both parent and offspring have the same DNA            D. it mutates after every generation</p> <p>An experiment is designed to measure the amount of friction between different types of surfaces. Andy pulls a wooden block across different surfaces using a spring scale, what quantity is Andy measuring?</p> <p>A Volume                      B Mass            *C Force                        D Weight</p>

<p><b>(4) Science investigation and reasoning.</b> The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:</p>	<p>How much liquid is shown in the container?</p> <p>A. 17.5 ml B. 18 ml *C. 18.2 ml D. 18.8 ml</p>  <p>A student measures the mass of a wood block as 52.62 g. He remeasures the rock three more times, getting a mass of 52.51 g, 52.75 g, and 58.25 g. What can be concluded concerning the block's mass?</p> <p>A. The mass is between 52 and 58 grams B. The block changed sizes due to temperature difference is the room *C. The blocks mass is most likely an average of the first three trials D. All of the data need to be thrown out and remeasured</p>
<p><b>(5) Matter and energy.</b> The student knows that interactions occur between matter and energy. The student is expected to:</p>	<p>Why can't food chains be of unlimited length?</p> <p>A. scarcity of prey                      *B. loss of energy C. too few organisms                  D. law of nature</p> <p>Prior to 1972, DDT was a commonly used pesticide. According to the food chain, which organism would have the greatest concentration of DDT?</p>  <p>A. Algae                      B. Small Fish C. Large Fish              * D. Bird</p>
<p><b>(6) Matter and energy.</b> The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:</p>	<p>Methane is one of the simplest organic compounds. It is composed of which of the following elements?</p> <p>*A. H and C                      B. C and N C. N and S                      D. O and H</p> <p>Which of the following represents a physical change?</p> <p>A electricity is generated oxygen and hydrogen from water *B calcium is dissolved by stomach acids C natural gas is burned as a heat source D condensation occurs on the outside of a glass of ice water</p>
<p><b>(7) Force, motion, and energy.</b> The student knows that there is a relationship among force, motion, and energy. The student is expected to:</p>	<p>In which scenario is work being done?</p> <p>A. A student holds a compressed spring in their hands B. A car decelerating coming down a hill C. A weightlifter holding a barbell for 5 seconds *D. A worker carries a heavy beam while walking along a flat surface</p> <p>Energy transformation that involve chemical changes also produce:</p> <p>A Electricity                      B Sound C Radiation                      *D Heat</p>

<p><b>(8) Earth and space.</b> The student knows that natural events and human activity can impact Earth systems. The student is expected to:</p>	<p>As the human population expands the suburbs and urban areas, freshwater supplies have been threatened. Which of the following is the primary reason that growths in these areas have reduced the aquifer recharge?</p> <p>A. Diversion of streams increases runoff  *B. Decrease infiltration of water due to concrete and pavement  C. Decreased consumption of water  D. Forest clearing promotes higher transpiration</p>
<p><b>(9) Earth and space.</b> The student knows components of our solar system. The student is expected to:</p>	<p>Before humans can travel to Venus, what will scientists need to invent?</p> <p>A. space suits that astronauts can wear inside and outside their spacecraft.  B. a method of communicating with astronauts as they travel in space.  C. food that can be stored for a long period of time before eating.  *D. new materials that can withstand the extreme heat and chemicals on Venus.</p>
<p><b>(10) Organisms and environments.</b> The student knows that there is a relationship between organisms and the environment. The student is expected to:</p>	<p>Why doesn't succession occur in climax communities?</p> <p>A. All life there has completely evolved  B. There is no human intervention to cause damage to the ecosystem  C. The abiotic factors are too unpredictable  *D. Conditions in the ecosystem are stable, resulting in equilibrium</p> <p>Which of the following has the most diversity?</p> <p>*A Tropical rain forest                      B Desert  C Taiga    D Tundra</p>
<p><b>(11) Organisms and environments.</b> The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:</p>	<p>Know how to use a dichotomous key.</p> <p>This occurs when animals sleep through the winter.</p> <p>A. Migration                                      *B. Hibernation  C. Succession                                      D. Natural Selection</p> <p>Variations are inherited from parents. Which of the following is a variation?</p> <p>*A. Some plants are taller than others  B. All plants look the same  C. Animal have more young that can survive on resources  D. Increase in reproductive success</p>

<p><b>(12) Organisms and environments.</b> The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:</p>	<p>The nervous system works with the respiratory system by</p> <ul style="list-style-type: none"> <li>A. releasing enzymes that control muscle contractions</li> <li>B. exchanging gases between lungs and blood</li> <li>C. regulating the amount of oxygen that blood cells carry</li> <li>*D. signaling muscle tissues to contract</li> </ul> <p>It contains most of the cell organelles. It is composed of a mixture of water and soluble organic &amp; inorganic compounds.</p> <ul style="list-style-type: none"> <li>*A. cytoplasm</li> <li>B. cell wall</li> <li>C. cell membrane</li> <li>D. vacuole</li> </ul> <p>What does the cell theory state?</p> <ul style="list-style-type: none"> <li>A. Cells arise spontaneously</li> <li>B. Every cell has one nucleus</li> <li>C. Plants are not composed of cells</li> <li>*D. All living things are made of cells</li> </ul> <p>Parkinson's disease is characterized by a slowing of voluntary movements, bradykinesia, muscular rigidity and tremors. Which of the following body systems does it affect?</p> <ul style="list-style-type: none"> <li>A. Endocrine</li> <li>B. Immune</li> <li>*C. Nervous</li> <li>D. Muscular</li> </ul>
<p><b>(13) Organisms and environments.</b> The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:</p>	<p>Which of these is not a reaction to an external stimulus?</p> <ul style="list-style-type: none"> <li>A. Animals shedding fur in the summer</li> <li>B. Rash developing on skin due to contact with allergen</li> <li>*C. Red and itchy eyes due to tiredness</li> <li>D. Plant growing towards a window</li> </ul> <p>A plant movement in response to sun's motion across the sky is called:</p> <ul style="list-style-type: none"> <li>A. Photosynthesis</li> <li>B. Phototropism</li> <li>C. Gravitropism</li> <li>*D. Heliotropism</li> </ul>
<p><b>(14) Organisms and environments.</b> The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:</p>	<p>In pea plants, tall is dominant over short. What pea size will result when 1 tall (TT) and 1 short pea (tt) plant are crossed?</p> <ul style="list-style-type: none"> <li>A. short plants only</li> <li>*B. tall plants only</li> <li>C. short and tall plants</li> <li>D. midsize plants</li> </ul> <p>Sponges reproduce through which form of asexual reproduction?</p> <ul style="list-style-type: none"> <li>A budding</li> <li>*B fragmentation</li> <li>C fission</li> <li>D partitioning</li> </ul>

## Science II TEKS Correlation

TEKS	Sample Question
<p><b>(1) Scientific investigation and reasoning.</b> The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:</p>	<p>In an experiment testing the solubility of oil, alcohol, and salt in water, it would be unsafe to heat the liquids</p> <ul style="list-style-type: none"> <li>a. over a Bunsen burner</li> <li>b. in a water bath</li> <li>*c. using a match</li> <li>d. using a hot plate</li> </ul>
<p><b>(2) Scientific investigation and reasoning.</b> The student uses scientific practices during laboratory and field investigations. The student is expected to:</p>	<p>If an experiment confirms a hypothesis, the next step is to see if the results are</p> <ul style="list-style-type: none"> <li>a. biased.</li> <li>*b. repeatable.</li> <li>c. erroneous.</li> <li>d. scientific.</li> </ul> <p>When a scientist compares two objects or events, what is he or she looking for?</p> <ul style="list-style-type: none"> <li>a. differences in the data</li> <li>b. causes and effects for the data</li> <li>*c. similarities in the data</li> <li>d. errors in the data</li> </ul> <p>What is the SI unit of mass?</p> <ul style="list-style-type: none"> <li>a. ton</li> <li>b. pound</li> <li>c. Centigram</li> <li>*d. kilogram</li> </ul>
<p><b>(3) Scientific investigation and reasoning.</b> The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</p>	<p>Weather prediction computer models are often wrong because</p> <ul style="list-style-type: none"> <li>a. the weathermen input inaccurate data</li> <li>b. weather prediction is an exact science</li> <li>*c. there are too many variables to cause change</li> <li>d. moving air masses can change direction</li> </ul> <p>Which of these individuals did not work at constructing elements into an organized table or chart?</p> <ul style="list-style-type: none"> <li>a de Chancourtois</li> <li>b Meyer</li> <li>c Mendeleev</li> <li>*d van den Broek</li> </ul> <p>What is true about the graphic?</p> <ul style="list-style-type: none"> <li>A. It is accurate but not precise</li> <li>*B. It is precise but not accurate</li> <li>C. It is both precise and accurate</li> <li>D. It is neither precise not accurate</li> </ul> 
<p><b>(4) Scientific investigation and reasoning.</b> The student knows how to use a</p>	<p>A student measures the mass of a rock as 45.66 g. He rereasures thrice more, getting masses of 45.47 g</p>



<p>the Sun, Earth, and Moon. The student is expected to:</p>	<ul style="list-style-type: none"> <li>a. north pole</li> <li>b. tropic of cancer</li> <li>*c. equator</li> <li>d. tropic of Capricorn</li> </ul> <p>If Earth rotated on its axis in the same time it revolved around the sun, the length of the day and year would be</p> <ul style="list-style-type: none"> <li>A. longer</li> <li>B. unchanged</li> <li>*C. equal</li> <li>D. shorter</li> </ul>
<p>(8) <b>Earth and space.</b> The student knows characteristics of the universe. The student is expected to:</p>	<p>By studying starlight, astronomers may learn which of the following?</p> <ul style="list-style-type: none"> <li>A. Elemental composition</li> <li>B. Speed of a star relative to Earth</li> <li>C. Surface temperature</li> <li>*D. All of these</li> </ul> <p>If the Hubble telescope detects a red shift in the light of a distant star, the star is</p> <ul style="list-style-type: none"> <li>*a. moving away from Earth</li> <li>b. approaching Earth</li> <li>c. moving the same speed as Earth</li> <li>d. stationary in space</li> </ul> <p>A light second is a unit of measuring:</p> <ul style="list-style-type: none"> <li>a. time in space</li> <li>*b. distance in space</li> <li>c. mass in space</li> <li>d. force in space</li> </ul>
<p>(9) <b>Earth and space.</b> The student knows that natural events can impact Earth systems. The student is expected to:</p>	<p>Which factor will have the greatest impact on the weathering rate of a bedrock surface?</p> <ul style="list-style-type: none"> <li>a. air pressure</li> <li>b. isolation</li> <li>c. age of the bedrock</li> <li>*d. climate</li> </ul> <p>Part of the east coast of South America and the west coast of Africa have matching fossils within the same series of rock layers. This provides evidence that these two continents were once:</p> <ul style="list-style-type: none"> <li>a. separated by a small lake that animals could easily cross</li> <li>b. located near the magnetic north pole of the earth</li> <li>c. in different hemispheres of the earth</li> <li>*d. joined together as a single landmass</li> </ul>
<p>(10) <b>Earth and space.</b> The student knows that climatic interactions exist among Earth,</p>	<p>Which of these will have the greatest effect on a region's climate?</p>

<p>ocean, and weather systems. The student is expected to:</p>	<ul style="list-style-type: none"> <li>a. Distance from the ocean</li> <li>*b. Distance from the equator</li> <li>c. Number of forests in the region</li> <li>d. Number of mountain ranges in the region</li> </ul> <p>These lines on a weather map connect points of equal pressure.</p> <ul style="list-style-type: none"> <li>*A. Isobars</li> <li>B. Isotherms</li> <li>C. High</li> <li>D. Low</li> </ul>
<p><b>(11) Organisms and environments.</b> The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems. The student is expected to:</p>	<p>How do decomposers obtain their energy?</p> <ul style="list-style-type: none"> <li>A. Hunting prey and killing them</li> <li>B. Converting CO<sub>2</sub> and H<sub>2</sub>O into energy</li> <li>C. Producing energy from sunlight</li> <li>*D. Absorbing energy from dead organisms</li> </ul> <p>Only ten percent of energy stored in an organism is passed on to the next higher trophic level. Of the remaining energy, some is used for life processes, and the rest is</p> <ul style="list-style-type: none"> <li>A. Used in reproduction</li> <li>B. Stored in lipids</li> <li>C. Stored in muscles</li> <li>*D. Eliminated as thermal energy</li> </ul>