

**ACP Blueprint
Grade 4 Science
Semester 1, 2015–2016**

Test Code	Year	Form
3041	15	3
Last Revision Date: 05/06/2015		

SE Descriptions	TEKS/SE	No. of Items	% of Test
1. Measure, compare, and contrast physical properties of matter, including size, mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float.	4.5A	3	11%
2. Predict the changes caused by heating and cooling such as ice becoming liquid water and condensation forming on the outside of a glass of ice water.	4.5B	2	7%
3. Compare and contrast a variety of mixtures and solutions such as rocks in sand, sand in water, or sugar in water.	4.5C	3	11%
4. Differentiate among forms of energy, including mechanical, sound, electrical, light, and heat/thermal.	4.6A	3	11%
5. Differentiate between conductors and insulators.	4.6B	2	7%
6. Demonstrate that electricity travels in a closed path, creating an electrical circuit, and explore an electromagnetic field.	4.6C	2	7%
7. Design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.	4.6D	3	11%
8. Measure and record changes in weather and make predictions using weather maps, weather symbols, and a map key. S	4.8A	3	11%
9. Describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process. S	4.8B	3	11%
10. Collect and analyze data to identify sequences and predict patterns of change in shadows, tides, seasons, and the observable appearance of the Moon over time. S	4.8C	3	11%
Total		27	

Note: **S** = Supporting Standard. This test is consumable. Percentages are rounded to the nearest whole number. No reference material is printed with this test. Calculators are **NOT** permitted.

Scientific Investigation and Reasoning Skills Eligible for Assessment

Descriptions	SE
1. Demonstrate safe practices and the use of safety equipment as described in the Texas Safety Standards during classroom and outdoor investigations.	4.1A
2. Make informed choices in the use and conservation of natural resources and reusing and recycling of materials such as paper, aluminum, glass, cans, and plastic.	4.1B
3. Plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions.	4.2A
4. Collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps.	4.2B
5. Construct simple tables, charts, bar graphs, and maps using tools and current technology to organize, examine, and evaluate data.	4.2C
6. Analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured.	4.2D
7. Perform repeated investigations to increase the reliability of results.	4.2E
8. Communicate valid oral and written results supported by data.	4.2F
9. In all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student.	4.3A
10. Draw inferences and evaluate accuracy of product claims found in advertisements and labels such as for toys , food and sunscreen.	4.3B
11. Represent the natural world using models such as rivers, stream tables, or fossils and identify their limitations, including accuracy and size.	4.3C
12. Connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.	4.3D
13. Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, mirrors, spring scales, pan balances, triple beam balances, , graduated cylinders, beakers, hot plates, meter sticks, compasses, magnets, collecting nets, and notebooks; timing devices, including clocks and stopwatches; and materials to support observations of habitats or organisms such as terrariums and aquariums.	4.4A
14. Use safety equipment as appropriate, including safety goggles and gloves.	4.4B