| Test Code | Year | Form |
|---|---|---|
| 3051 | 15 | 3 |
| Last Revision Date: 05/06/2015 | | |

# *ACP* Blueprint
# Grade 5 Science
# Semester 1, 2015–2016

| SE Descriptions | Reporting Category | TEKS/SE | R or S | No. of Items | % of Test |
|---|---|---|---|---|---|
| **1.** Predict, observe, and record changes in the state of matter caused by heating or cooling. | 1 | 3.5C | S | 1 | 3% |
| **2.** Demonstrate and observe how position and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons. | 2 | 3.6B | S | 1 | 3% |
| **3.** Identify the planets in Earth's solar system and their position in relation to the Sun. | 3 | 3.8D | S | 1 | 3% |
| **4.** Measure and record changes in weather and make predictions using weather maps, weather symbols, and a map key. | 3 | 4.8A | S | 1 | 3% |
| **5.** 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. | 3 | 4.8B | S | 1 | 3% |
| **6.** 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. | 3 | 4.8C | S | 1 | 3% |
| **7.** Classify matter based on physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating), solubility in water, and the ability to conduct or insulate thermal energy or electric energy. | 1 | 5.5A | R | 3 | 10% |
| **8.** Identify the boiling and freezing/melting points of water on the Celsius scale. | 1 | 5.5B | S | 1 | 3% |
| **9.** Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand. | 1 | 5.5C | S | 1 | 3% |
| **10.** Identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water. | 1 | 5.5D | S | 2 | 7% |
| **11.** Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy. | 2 | 5.6A | R | 3 | 10% |
| **12.** Demonstrate that the flow of electricity in circuits requires a complete path through which an electric current can pass and can produce light, heat, and sound. | 2 | 5.6B | R | 3 | 10% |

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|---|---|---|---|---|---|
| **13.** Demonstrate that light travels in a straight line until it strikes an object or travels through one medium to another and demonstrate that light can be reflected such as the use of mirrors or other shiny surfaces and refracted such as the appearance of an object when observed through water. | 2 | 5.6C | R | 3 | 10% |
| **14.** Design an experiment that tests the effect of force on an object. | 2 | 5.6D | S | 2 | 7% |
| **15.** Differentiate between weather and climate. | 3 | 5.8A | S | 1 | 3% |
| **16.** Explain how the Sun and the ocean interact in the water cycle. | 3 | 5.8B | S | 1 | 3% |
| **17.** Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky. | 3 | 5.8C | R | 3 | 10% |
| **18.** Identify and compare the physical characteristics of the Sun, Earth, and Moon. | 3 | 5.8D | S | 1 | 3% |
| | **Total** | | **R** | 15 | 50% |
| | | | **S** | 15 | 50% |
| | | | **All** | **30** | |

**Note**: **R** = Readiness Standard, **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.

**Reporting Categories:**
1. Matter and Energy
2. Force, Motion, and Energy
3. Earth and Space
4. Organisms and Environments

| 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. | 5.1A |
| **2.** Make informed choices in the conservation, disposal, and recycling of materials. | 5.1B |
| **3.** Describe, plan, and implement simple experimental investigations testing one variable. | 5.2A |
| **4.** Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology. | 5.2B |
| **5.** Collect information by detailed observations and accurate measuring. | 5.2C |
| **6.** Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. | 5.2D |
| **7.** Demonstrate that repeated investigations may increase the reliability of results. | 5.2E |
| **8.** Communicate valid conclusions in both written and verbal forms. | 5.2F |
| **9.** Construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information. | 5.2G |
| **10.** 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. | 5.3A |
| **11.** Evaluate the accuracy of the information related to promotional materials for products and services such as nutritional labels. | 5.3B |
| **12.** Draw or develop a model that represents how something works or looks that cannot be seen such as how a soda dispensing machine works. | 5.3C |
| **13.** Connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists. | 5.3D |
| **14.** Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, pan balances, triple beam balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, 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. | 5.4A |
| **15.** Use safety equipment, including safety goggles and gloves. | 5.4B |