

**ACP Blueprint
Science 7
Semester 1, 2021–2022**

Test Code	Year	Form
3071	21	3
Last Revision Date: 06/02/2021		

SE Descriptions	TEKS/S E	No. of Items	% of Test
1. Distinguish between physical and chemical changes in matter. S	7.6	4	12%
2. Demonstrate and illustrate forces that affect motion in organisms such as emergence of seedlings, turgor pressure, geotropism, and circulation of blood.	7.7B	4	12%
3. Identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems. S	7.12B	4	12%
4. Recognize levels of organization in plants and animals, including cells, tissue, organs, organ systems, and organisms.	7.12C	4	12%
5. Differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole. S	7.12D	4	12%
6. Compare the functions of cell organelles to the functions of an organ system.	7.12E	3	9%
7. Recognize the components of cell theory. S	7.12F	3	9%
8. Investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight.	7.13A	4	12%
9. Describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance.	7.13B	3	9%
Total		33	

Note: **S** = Supporting Standard. A copy of the Grade 8 Science STAAR Reference Materials will be printed with the test or provided in DAN. This test is consumable. Percentages on this blueprint are rounded to the nearest whole number.

Calculator Policy:

Schools must ensure that there is at least one calculator with basic (i.e. four-function), scientific, or graphing capability for every five students.

The campus may provide calculating devices, or students may bring them from home. Students should be provided the same type of calculation device they use routinely in class work. Providing an unfamiliar calculation device on the day of the assessment may hinder rather than aid the student. Students may have more than one calculation device during the assessment.

For handheld calculators, all memory must be cleared to factory default both before and after testing. Any programs or applications that are not preinstalled by default must be removed or disabled prior to testing. For specific assistance in appropriately preparing calculators for use during testing, contact the calculator manufacturer.

For calculator applications, all Internet capabilities must be disabled on the device. In addition, the calculator application being used must be locked down (in kiosk mode) to prevent the use of other applications during testing. Campuses should be aware that some calculator applications include resources that could aid students during testing. Students must be monitored closely to ensure that these resources are not accessed during the test. Calculators with a Calculator Algebra System (CAS) are **NOT** allowed.

Scientific Investigation and Reasoning Skills Eligible for Assessment

SE Descriptions	SE
1. Demonstrate safe practices during laboratory and field investigations as outlined in Texas Education Agency-approved safety standards.	7.1A
2. Practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials.	7.1B
3. Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology.	7.2A
4. Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology.	7.2B
5. Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers.	7.2C
6. Construct tables and graphs, using repeated trials and means, to organize data and identify patterns.	7.2D
7. Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.	7.2E
8. Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student.	7.3A
9. Use models to represent aspects of the natural world such as human body systems and plant and animal cells.	7.3B
10. Identify advantages and limitations of models such as size, scale, properties, and materials.	7.3C
11. Relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.	7.3D
12. Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other necessary equipment to collect, record, and analyze information.	7.4A
13. Use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.	7.4B