

Properties of Matter

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Physical Properties	☐ I can compare and contrast matter based on measurable, testable, or observable physical properties, including: 5.6(A) ☐ mass ☐ magnetism ☐ relative density (sinking and floating using water as a reference point) ☐ physical state (solid, liquid, gas) ☐ volume ☐ solubility in water ☐ ability to conduct or insulate thermal energy and electric energy				
	☐ I can predict, observe, and record changes in the state of matter caused by: 3.6(C) ☐ heating in a variety of substances ☐ cooling in a variety of substances				
Mixtures	☐ I can demonstrate and explain that some mixtures maintain the physical properties of their substances. 5.6(B)				
	☐ I can compare the properties of substances before and after they are combined into a solution. 5.6(C)				
	☐ I can demonstrate that matter is conserved in solutions. 5.6(C)				
Atomic Theory	☐ I can illustrate how matter is made up of particles that are too small to be seen. 5.6(D)				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Force and Motion

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Investigating Forces	☐ I can investigate and explain how equal and unequal forces acting on an object cause patterns of motion and transfer of energy. 5.7(A)				
	☐ I can design a simple experimental investigation that tests the effect of force on an object in a system. 5.7(B)				
	☐ I can demonstrate and describe forces acting on an object in contact or at a distance, including: 3.7(A) ☐ magnetism ☐ gravity ☐ pushes and pulls				
	☐ I can plan and conduct a descriptive investigation to demonstrate and explain how: 3.7(B) ☐ position can be changed by pushing and pulling objects ☐ motion can be changed by pushing and pulling objects				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Energy

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Transfer of Energy	☐ I can investigate and identify the transfer of energy by: 4.8(A) ☐ objects in motion ☐ waves in water ☐ sound				
	☐ I can investigate and describe the transformation of energy in systems. 5.8(A)				
Electrical Energy	☐ I can demonstrate that electrical energy in complete circuits can be transformed into motion, light, sound, or thermal energy. 5.8(B)				
	☐ I can identify the requirements for a functioning electrical circuit. 5.8(B)				
Light	☐ I can demonstrate and explain how light travels in a straight line and can be: 5.8(C) ☐ reflected ☐ refracted ☐ absorbed				

Process: Ways to Show		Notes	Check Up		
Models/ Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/ Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Space

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Earth's Movement	☐ I can demonstrate that Earth rotates on its axis once approximately every 24 hours. 5.9(A)				
	☐ I can explain how rotation causes the day/night cycle. 5.9(A)				
	☐ I can explain how rotation causes the appearance of the Sun moving across the sky, resulting in changes in shadow positions and shapes. 5.9(A)				
	☐ I can collect and analyze data to: 4.9(A) ☐ identify sequences in seasons ☐ predict patterns of change in seasons				
	☐ I can collect and analyze data to: 4.9(B) ☐ identify sequences in the observable appearance of the Moon from Earth ☐ predict patterns of change in the observable appearance of the Moon from Earth				
The Solar System	☐ I can identify the order of the planets in Earth's solar system in relation to the Sun. 3.9(B)				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Earth's Processes

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Water Cycle	☐ I can explain how the Sun and the ocean interact in the water cycle. 5.10(A)				
	☐ I can explain how the Sun affects weather. 5.10(A)				
	☐ I can explain how the ocean affects weather. 5.10(A)				
	☐ I can describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle. 4.10(A)				
	☐ I can explain the role of the Sun as a major source of energy in the water cycle. 4.10(A)				
	☐ I can differentiate between weather and climate. 4.10(C)				
Rock Cycle	☐ I can model and describe the processes that led to the formation of sedimentary rocks. 5.10(B)				
Landforms	☐ I can model and identify how changes to Earth's surface by wind, water, or ice result in the formation of landforms, including: 5.10(C) ☐ deltas ☐ canyons ☐ sand dunes				
	☐ I can model and describe slow changes to Earth's surface caused by: 4.10(B) ☐ weathering from water, wind, and ice ☐ erosion from water, wind, and ice ☐ deposition from water, wind, and ice				
	☐ I can model and describe rapid changes in Earth's surface. 3.10(C)				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Earth's Resources

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Fossil Fuels	☐ I can model and describe the processes that led to the formation of fossil fuels. 5.10(B)				
Resource Management	☐ I can identify and explain the advantages of using Earth's natural resources. 4.11(A) ☐ renewable natural resources ☐ nonrenewable natural resources				
	☐ I can identify and explain the disadvantages of using Earth's natural resources. 4.11(A) ☐ renewable natural resources ☐ nonrenewable natural resources				
	☐ I can design and explain solutions to minimize environmental impacts of the use of natural resources. 5.11(A)				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Organisms and Environments

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Biotic and Abiotic Factors	☐ I can observe and describe how a variety of organisms survive by interacting with biotic and abiotic factors in a healthy ecosystem. 5.12(A)				
Food Webs	☐ I can describe the cycling of matter and flow of energy through food webs, including the roles of: 4.12(B) ☐ the Sun ☐ producers ☐ consumers ☐ decomposers				
	☐ I can identify and describe the flow of energy in a food chain. 3.12(B)				
	☐ I can predict how changes in a food chain affect the ecosystem. 3.12(B)				
	☐ I can predict how changes in the ecosystem affect: 5.12(B) ☐ the cycling of matter in a food web ☐ the flow of energy in a food web				
Fossils	☐ I can identify fossils as evidence of past living organisms and environments, including common Texas fossils. 3.12(D)				
Human Impact on Ecosystems	☐ I can describe a healthy ecosystem. 5.12(C)				
	☐ I can describe how human activities can be beneficial or harmful to an ecosystem. 5.12(C)				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				

Structure, Function, and Survival

Process: Tools to Know		Notes	Check Up		
Investigations	☐ I can plan and conduct investigations and design solutions. 5.1(A), 5.1(B), 5.1(C), 5.2(D), 5.5(A)				
Tools and Equipment	☐ I can use appropriate tools and equipment. 5.1(D)				
Information	☐ I can collect and record information. 5.1(E), 5.1(F)				

Content		Notes	Check Up		
Structure and Function	☐ I can analyze the structures and functions of different species to identify how organisms survive in the same environment. 5.13(A)				
Traits and Behaviors	☐ I can explain how instinctual behavioral traits and learned behavioral traits increase chances of survival. 5.13(B)				

Process: Ways to Show		Notes	Check Up		
Models/Information	☐ I can develop and use models/information. 5.1(G), 5.2(A), 5.5(C)				
Data	☐ I can analyze and interpret data. 5.2(B), 5.2(C)				
Explanations/Solutions	☐ I can develop and communicate explanations/solutions. 5.3(A), 5.3(B), 5.3(C), 5.5(A), 5.5(B)				
Interdependence	☐ I can explain interdependence. 5.5(D), 5.5(E), 5.5(F), 5.5(G)				
Science and the Real World	☐ I can connect science with the real world. 5.4(A), 5.4(B)				