



**Correlation of**

***World of Chemistry, FL Edition***  
**by Zumdahl, Zumdahl, and DeCoste, © 2023,**  
**ISBN: 9798214071862**

**to**

**Florida Science Standards**  
**G9-12 Physical Science Access Points**

Access Points	Student Material References	Teacher Material References
<b>Matter</b>		
SC.912.P.8.In.1 Classify states of matter as solid, liquid, and gaseous.	35-36, 37, 39	T35-36, T37, T39
SC.912.P.8.In.2 Compare characteristics of physical and chemical changes of matter.	38-41	T38-41
SC.912.P.8.In.3 Identify the nucleus as the center of an atom.	117-120	T117-120
SC.912.P.8.In.4 Recognize that the periodic table includes all known elements.	124	T124
SC.912.P.8.In.5 Identify that compounds are made of two or more elements.	33-35, 113	T33-35, T113
SC.912.P.8.In.6 Identify formulas for common compounds, such as H <sub>2</sub> O and CO <sub>2</sub> .	34-35, 113	T34-35, T13
SC.912.P.8.In.8 Identify that carbon is found in all living things.	103	T103
SC.912.P.8.In.7 Identify properties of common acids and bases.	596-604	T596-604
SC.912.P.8.Pa.6 Recognize that some acids and bases can be dangerous and identify related hazard symbols.	xxv, 619	Txxv, T619
SC.912.P.8.Pa.4 Recognize that the parts of an object can be put together to make a whole.	34	T34
SC.912.P.8.Pa.5 Match common compounds to their names or communication symbols.	34, 155-168, 169-176	T34, T155-168, T169-176
SC.912.P.8.Pa.2 Recognize a common chemical change, such as cooking, burning, rusting, or decaying.	8, 38, 42, 234-235	T38, T42, T234-235
SC.912.P.8.Pa.3 Recognize that the parts of an object can be put together to make a whole.	34	T34
SC.912.P.8.Pa.1 Select an example of a common solid, liquid, and gas.	35	T35
SC.912.P.8.Su.2 Identify examples of physical and chemical changes.	38-41	T38-41
SC.912.P.8.Su.3 Recognize that atoms are tiny particles in materials, too small to see.	118-119	T118-119
SC.912.P.8.Su.6 Match common chemical formulas to their common name, such as H <sub>2</sub> O to water.	168, 176, 180-182	T168, T176, T180-182
SC.912.P.8.Su.5 Recognize examples of common compounds, such as water and salt.	34, 155-168, 169-176	T34, T155-168, T169-176
SC.912.P.8.Su.4 Recognize examples of common elements, such as oxygen and hydrogen.	33, 106-111, 126-127	T33, T106-111, T126-127

Access Points	Student Material References	Teacher Material References
Categorize common materials or foods as acids or bases.	173, 272, 596	T272, T596
SC.912.P.8.Su.8 Recognize that carbon is found in all living things.	103	T103
SC.912.P.8.Su.1 Identify examples of states of matter as solid, liquid, and gaseous.	35-36, 39	T35-36, T39
<b>Energy</b>		
SC.912.P.10.In.1 Identify examples of energy being transformed from one form to another (conserved quantity).	360-363	T360-363
SC.912.P.10.In.2 Identify power as work done in a certain amount of time using measurable terms, such as watts or horsepower.	727	T345, T727
SC.912.P.10.In.3 Relate the transfer of heat to the states of matter, including gases result from heating, liquids result from cooling a gas, and solids result from further cooling a liquid.	35-36, 519-523	T35-36, T519-523
SC.912.P.10.In.4 Describe a process that gives off heat (exothermic), such as burning, and a process that absorbs heat (endothermic), such as water coming to a boil.	346-347, 367	T346-347, T367
SC.912.P.10.In.6 Identify that atoms can be changed to release energy, such as in nuclear power plants, and recognize one related safety issue.	708, 726-728	T708, T726-728
SC.912.P.10.In.5 Identify fundamental forces, including gravitational and electromagnetic.	384, 725	T384, T725
SC.912.P.10.In.7 Identify common conductors and insulators of electricity.	128, 177, 533, 536	T128, T177, T533, T536-537
SC.912.P.10.In.8 Identify that some electrical devices use different types of power sources and explain what might happen if incorrect electrical components are used.	17 (partial)	T17 (partial)
SC.912.P.10.In.9 Identify common applications of electromagnetic waves moving through different media, such as radio waves, microwaves, x-rays, or infrared.	384	T384
SC.912.P.10.Pa.8 Demonstrate opening and closing an electrical circuit to turn an electrical device on and off.	689-691	T689-691
SC.912.P.10.Pa.6 Recognize that an object falls unless stopped (gravity).	CIYW, 408	T725
SC.912.P.10.Pa.7 Recognize safe and unsafe practices related to the use of electricity, such as keeping foreign objects out of electrical sockets and not using electrical devices around water.	21	T21
SC.912.P.10.Pa.2 Recognize that work requires energy.	340, 342, 343, 344, 348, 360, 688, 700	T342, T344, T348, T360
SC.912.P.10.Pa.5 Recognize the universal symbols for radioactive	xxv	Txxv

Access Points	Student Material References	Teacher Material References
and other hazardous materials.		
SC.912.P.10.Pa.10 Recognize primary and secondary colors in visible light.	383-384	T383-384
SC.912.P.10.Pa.9 Recognize how magnets are used in real-world situations.	51, 55, 732	T51, T54-55, T109, T408, T732
SC.912.P.10.Pa.3 Recognize the source and recipient of heat transfer.	351, 545	T351, T545
SC.912.P.10.Pa.4 Identify materials that provide protection (insulation) from heat.	345	T345
SC.912.P.10.Pa.1 Observe and recognize examples of the transformation of electrical energy to light and heat.	138 (Fig 8-2, 598 (fig 16-1))	
SC.912.P.10.Su.1 Recognize energy transformations that occur in everyday life, such as solar energy to electricity.	365, 708, 726-728	T365, T708-709, T726-728
SC.912.P.10.Su.4 Recognize common processes that give off heat (exothermic), such as burning, and processes that absorb heat (endothermic), such as water coming to a boil.	346-347, 367	T346-347, T367
SC.912.P.10.Su.3 Observe and recognize ways that heat travels, such as through space (radiation), through solids (conduction), and through liquids and gases (convection).	6, 35, 351, 356, 376-377	T6, T35, T351, T356, T376-377
SC.912.P.10.Su.2 Recognize the relationship between work and power, such as power is how fast a person or machine does work.	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .
SC.912.P.10.Su.5 Recognize that nuclear power plants generate electricity and can be dangerous.	708-709, 727	T708-709, T727
SC.912.P.10.Su.7 Recognize common objects that conduct electricity (conductors) and objects that do not conduct electricity (insulators).	128, 177, 533, 536	T128, T177, T533, T536-537
SC.912.P.10.Su.6 Recognize fundamental forces, such as gravitational.	384, 725	T384, T725
SC.912.P.10.Su.8 Recognize that some electrical devices use different types of power sources.	maybe	maybe
SC.912.P.10.Su.9 Observe and identify the effects of magnetic attraction on iron.	55	T54-55, T109
SC.912.P.10.Su.10 Recognize examples of electromagnetic waves moving through different media, such as microwave ovens, radios, and x-rays.	384	T384

Access Points	Student Material References	Teacher Material References
<b>Motion</b>		
SC.912.P.12.In.1 Recognize that scalar quantities describe the magnitude of the measurement, such as size, weight, volume, area, temperature, or speed.	58-59, 60-67	T58-59, T60-67
SC.912.P.12.In.2 Identify acceleration as a change in speed or direction.	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .
SC.912.P.12.In.3 Recognize various situations that show Newton's third law of motion: for every action there is an equal and opposite reaction.	343	T343
SC.912.P.12.In.4 Identify examples of how gravity attracts other objects, such as people to Earth or orbits of planets in the Solar System.	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .
SC.912.P.12.In.5 Recognize that the speed of light is always the same.	384	T94, T384
SC.912.P.12.In.6 Identify that gases exert pressure in a closed surface, such as pressure inside a basketball or a hot air balloon.	467, 470-471, 475-479, 487-492, 493-501, 503-504	T467, T470-471, T475-479, T487-492, T493-501, T503-504
SC.912.P.12.Pa.6 Recognize that some objects contain air, such as balloons, tires, and balls.	467, 470-471	T467, T470-471
SC.912.P.12.Pa.4 Recognize that things fall down toward Earth unless stopped or held up (gravity).	CIYW, 408	T725
SC.912.P.12.Pa.5 Recognize ways to stop light from traveling, such as closing a door.	389	T389
SC.912.P.12.Pa.2 Identify the speed and direction of a moving object, including fast and slow, up and down, round and round, straight line.	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .
SC.912.P.12.Pa.3 Identify the source of the force moving an object.	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .	This access point is not directly addressed in this edition of <i>World of Chemistry</i> .
SC.912.P.12.Pa.1 Recognize that objects travel at different speeds.	81	T81, T468, T491
SC.912.P.12.Su.1 Recognize that speed is expressed as distance moved in a certain time, such as miles per hour or feet per second.	81	T81
SC.912.P.12.Su.3 Recognize the action and reaction in a situation that show Newton's third law of motion: for every action there is an equal and opposite reaction.	343	T343
SC.912.P.12.Su.2 Recognize that acceleration generally involves a	This access point is not directly	This access point is not directly

Access Points	Student Material References	Teacher Material References
change in speed.	addressed in this edition of <i>World of Chemistry</i> .	addressed in this edition of <i>World of Chemistry</i> .
SC.912.P.12.Su.4 Identify that gravity is a force that attracts objects.	472	T472
SC.912.P.12.Su.5 Recognize that light travels very fast.	384	T384
SC.912.P.12.Su.6 Recognize that a gas can exert pressure, such as in balloons, car tires, or pool floats.	467, 470-471, 475-479, 487-492, 493-501, 503-504	T467, T470-471, T475-479, T487-492, T493-501, T503-504

“National Geographic,” “National Geographic Society” and the “Yellow Border Design” are registered trademarks of the National Geographic Society® Marcas Registradas.