

**PRESCOTT UNIFIED SCHOOL DISTRICT**  
**District Instructional Guide**  
**Date Revised 6-1-2015**

<b>Grade Level: 7</b>	<b>Subject: Science</b>	<b>Time: Quarter 1</b>	<b>Core Text: Nature of Science Astronomy</b>
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<b>Time</b>	<b>Topic</b>	<b>Content (Nouns)</b>	<b>Skills (Verbs)</b>	<b>Standards</b>
<b>Week 1</b>	Classroom Science method	Inquiry	I know how to be prepared for science class. I can explain what behaviors are expected of me in the science classroom. I am familiar with classroom procedures and lab safety rules. I can design a controlled experiment	S1 C1 P01, 2 S1 C2 P03 S1 C3 P01, 4 S1 C4 P02, 4 S2 C2 P01-3  ACCRS 6-8. RST.4 RST.7 RST.10
<b>Week 2</b>	Metric system Mini-me	Metric measurement and conversion science milestones	I can use metric measurement tools to quantify length and volume I can calculate density I can design an appropriate data table for my experiment's data I can choose the best type of graph for my data I can build a graph of my experiment's data	S1 C1-3 S2 C1 P02  ACCRS 6-8. WHST.1 RST.4 RST.7 RST.9 RST.10
<b>Week 3</b>	Science Method Metric	Science method vocabulary	I can express my ideas about how a modern invention has affected my life in my Mini-me writing I can present my findings on my experiment I can use study skills to prepare for a unit test I can use my notebook effectively to help me on a unit test	S1 C1-3  ACCRS 6-8. RST.1 RST.4 RST.9 RST.10
<b>Week 4</b>	Earth in Space	Movements of Earth (rotation / revolution) Reasons for Seasons	I can demonstrate how the earth moves in space I can explain why the earth experiences seasons I can model the earth positions that cause seasons	S6 C3 PO2 S6 C3 PO4

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		Tilt of the Earth's axis Gravity Inertia Orbit	I can describe the strength of the force of gravity between two objects I can diagram how two factors combine to keep the moon and earth in orbit	ACCRS 6-8 RST.1 RST.4 RST.7 RST.9 RST.10
<b>Week 5</b>	The Moon	Phases of the moon Eclipses Tides Weight in space Daylight hours around the world	I can demonstrate the phases of the moon and explain why they appear as they do I can describe the reason for lunar and solar eclipses I can graph different daylight hours from around the world and explain it.	S6 C3 PO2 S6 C3 PO4 S6 C3 PO1  ACCRS 6-8 RST.1 RST.4 RST.7 RST.9 RST.10
<b>Week 6</b>	Eclipses and Tides  International Space Station	Solar Eclipse Lunar Eclipse International Space Station (ISS) Space program Space shuttle	I can diagram both a lunar and solar eclipse I can express the relationship between the moon and earth's tides I can research current events in astronomy: ISS	S6 C3 PO2 S6 C3 PO4 S6 C3 PO1 S6 C3 PO3  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 7</b>	International Space Station  Science of Rockets	Life and experiments on the ISS Rockets Thrust Orbital velocity Escape velocity Space debris	I can report about scientific projects occurring onboard the International Space Station I can present my understanding of the ISS mission through a cooperative presentation I can explain how rockets work	S6 C3 PO6  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 8</b>	Origin of the Moon  Water on the Moon	5 theories of moon formation Features of moon surface LCROSS mission to find water	I can describe features found on the moon's surface I can illustrate how the moon was formed I can collect data on impact craters	S6 C3 PO6  ACCRS 6-8 RST.4 RST.9

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				RST.10
<b>Week 9</b>	The Sun	Layers of the sun Nuclear Fusion Sunspots Period of revolution in orbit	I can describe the structure and activity of our star, the sun. I can graph sunspot cycles and explain them I can demonstrate how a star's distance from the sun affects a planet's period of revolution.	S6 C3 PO6  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 10</b>	The Hubble The Planets	Rocky planets Gas giants	I can make observations about the planets in our solar system I can use expert folders to determine the importance of information and take notes I can use laptops to find information on my planet I can use MLA style to cite my references I can cooperate and work well with my group	S6 C3 PO6  ACCRS 6-8 RST.4 RST.9 RST.10

<b>Grade Level:</b>	<b>Subject:</b>	<b>Time: Quarter 2</b>	<b>Core Text: Astronomy Inside Earth</b>
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<b>Time</b>	<b>Topic</b>	<b>Content (Nouns)</b>	<b>Skills (Verbs)</b>	<b>Standards</b>
<b>Week 11</b>	Objects that fly through space Classifying Stars Parallax Constellations	Comets Asteroids Meteoroids H-R diagram Stars Parallax shift Calculating star distance Identify & locate constellations Star wheels	I can explain the difference between comets, asteroids and meteors I can collect and identify meteorites I can explain why some locations on earth "collect" meteorites I can use the Hertzsprung-Russell diagram to classify stars I can identify common constellations and use a star wheel	S6 C3 PO6 S6 C3 PO5  ACCRS 6-8 6-8.RST.4 6-8.RST.7 6-8.RST.9 6-8.RST.10

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<b>Week 12</b>	Light years Lives of stars Star systems Galaxies	Scientific notation Light year mathematics Star systems Black holes Progressive “lives” of stars Nebulas White dwarfs Protostars	I can manipulate materials to model parallax shift I can calculate a star’s distance using parallax data I can discriminate the different “lives” of stars based on their mass I can compare the varied processes of star deaths I can organize information about star systems & galaxies	S6 C3 PO6 ACCRS 6-8 WHST.1 RST.4 RST.7 RST.9
<b>Week 13</b>	Earths Interior Earth’s layers Heat Transfer Magnetic Field	Thickness of layers Properties of layers Earth models Journey inside Earth story Magnetism lab	I can explain the physical characteristics of the 4 layers of the earth I can draw the layers proportionately I can research and gather information on each layer I can write a creative story and express what I’ve learned about earth’s interior I can relate density to earth’s interior.	S6C1PO2  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 14</b>	Convection currents Magnetism	Core=dynamo Charting magnetic north Earth models	I can explain how the inner and outer core create Earth’s magnetic field I can draw convections currents in the mantle I can play with magnetism on a model of the earth I can discover how magnetism has left stripes along the seafloor	S6C2 PO3,4  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 15</b>	Continental drift Seafloor Spreading	Fossils as story Evidence Scientists Magnetism Hypothesis & Theory	I can explain Alfred Wegener’s hypothesis about the continents I can describe the evidence Wegener used to support his hypothesis I can diagram the process of seafloor spreading I can discover how magnetism has left stripes along the seafloor	S6,C2,PO4,5 S6C1,PO2,3  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 16</b>	Seafloor Spreading Plate Tectonics	Plate movement Evidence Illustration Model	I can explain how knowledge of the seafloor has lead to the theory of Plate Tectonics I can explain how Harry Hess’ contributions advanced Wegener’s hypothesis to form the theory of Plate Tectonics I can illustrate how the features of the seafloor help us understand plate movement	6C2,PO4,5 S6C1,PO2,3  ACCRS 6-8 RST.1 RST.4 RST.9

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				RST.10
<b>Week 17</b>	Plate movement Rate of movement	Calculating rate Plate boundaries Tectonics	I can explain the theory of Plate Tectonics I can illustrate the three major types of plate boundaries I can calculate the rate of movement of plates I can summarize the tectonic setting that... (e.g. caused the earthquake in Haiti)	S6C2,PO3,4,5  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 18</b>	Rate of movement Types of plate boundaries Predict future plate configuration	Calculation Prediction	I can illustrate the three major types of plate boundaries I can design a “fantasy continent” and predict its movement over 100 million years	S6C2,PO3,4,5  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 19</b>	Forces in the Earth’s crust Earthquakes	Faults Folds Types of pressure Seismic waves	I can illustrate how the earth bends and folds under different stresses I can explain how the energy from earthquakes travels through earth I can select the appropriate scale scientists use to describe the strength of an earthquake I can locate the epicenter of an earthquake	S6C2,PO5,6  ACCRS 6-8 WHST.1 RST.4 RST.9 RST.10

<b>Grade Level:</b>	<b>Subject:</b>	<b>Time: Quarter 3</b>	<b>Core Text: Inside Earth</b>
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<b>Time</b>	<b>Topic</b>	<b>Content (Nouns)</b>	<b>Skills (Verbs)</b>	<b>Standards</b>
<b>Week 20</b>	Effects of earthquakes Seismic waves	P wave S wave Seismograph	I can describe how a seismograph works I can design a structure for the earthquake machine and draw it to scale I can describe the different instruments used to monitor faults	S6C2,PO6  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10

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<b>Week 21</b>	Volcanoes	Eruption Viscosity Hot Spot Silica	I can locate and explain the reason for the “Ring of Fire” I can illustrate how a “hot spot” effects the landscape I can describe viscosity and how it effects eruptive style I can explain silica content and identify rocks based on that criteria I can show the sequence of events during an eruption	S6C1,PO2,3  ACCRS 6-8 RST.1 RST.4 RST.7 RST.9 RST.10
<b>Week 22</b>	Minerals	Hardness Color, Streak Luster, Density	I can define mineral in my own words I can identify minerals by their physical properties I can explain the difference between a mineral and a rock	S6C1,PO1  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 23</b>	Sedimentary Rocks	Sedimentary Sedimentary Environments Metamorphic The Rock Cycle	I can model the process sediment goes through to become a sedimentary rock I can describe the stages of the rock cycle	6,C2, PO1 PO2 PO3 S6,C1, PO1 PO3  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 24</b>	Metamorphic Rocks Igneous Rocks	Metamorphosis Foliation Grain Size	I can explain what a rock must undergo to become metamorphosed I can identify major rocks from all three rock groups	S6,C2, PO2 PO3 S6,C1, PO1 PO3 ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 25</b>	Weathering and Erosion	Chemical weathering Mechanical meeting	I can demonstrate mechanical and chemical weathering	S6,C1, PO3

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	How Soil Forms	Erosion	I can observe the process of erosion by water (streamtable) I can explain the conditions that lead to the Dust Bowl I can express the necessity of soil conservation	ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 26</b>	Deposition	Landslides, mudflows etc.	I can model different forms of mass movement I can illustrate the forces that form a river floodplain	S1,C3,PO3,5 S6,C1,PO3  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 27</b>	Habitat com	Levels of organization	I can identify the needs that must be met by an organism's surroundings. I can identify biotic and abiotic parts of a habitat I can describe the levels of organization within an ecosystem.	S4 C3P01-6  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 28</b>	Populations	Interactions of living organisms and their ecosystems	I can describe methods for determining the size of a population. I can explain the causes of changes in population size. I can identify factors that limit growth.	S4 C3 PO3  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 29</b>	Interaction Among Living Things	Niche, Natural Selection Competition, Predation, Predator, Prey, Symbiosis, Mutualism, Commensalism, Parasitism, Parasite, Prey	I can explain how an organism's adaptations help it survive. I can describe the major kinds of interactions among organisms in an ecosystem. I can identify three types of symbiotic relationships.	S1 C3 PO4 –PO7  S4 C3 PO2 PO3 PO5  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10

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<b>Grade Level:</b>	<b>Subject:</b>	<b>Time: Quarter 4</b>	<b>Core Text: Environmental Science</b>
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<b>Time</b>	<b>Topic</b>	<b>Content (Nouns)</b>	<b>Skills (Verbs)</b>	<b>Standards</b>
<b>Week 30</b>	Energy Flow in an Ecosystem	Producer, Consumer, Herbivore, Carnivore, Omnivore, Scavenger, Decomposer, Food Chain, Food Web, Energy Pyramid	I can name and describe energy roles that organisms play in an ecosystem. I can explain how energy moves through an ecosystem. I can describe how much energy is available at each level of an energy pyramid.	S4 C3 PO1 S2 C2 PO3 S1 C2 PO1 PO5  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10
<b>Week 31</b>	Cycles of Matter	Water Cycle Carbon-Oxygen Cycle Nitrogen Cycle	I can name and describe the processes involved in the Water Cycle. I can explain how carbon and oxygen are recycled in an ecosystem. I can define and describe the Nitrogen Cycle.	S4 C3  ACCRS 6-8 6-8.RST.4 6-8.RST.7 6-8.RST.9 6-8.RST.10
<b>Week 32</b>	AIMS			
<b>Week 33</b>	Pangaea – Continental Drift  Biomes	Limit to species dispersal  Biome, Canopy,	I can name six major biomes found on Earth. I can describe organisms that might be found in each biome and adaptations that they might possess. I can name and describe the factors that determine the type of	S4 C3  ACCRS 6-8 RST.4 RST.7 RST.9 RST.10



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<b>Week 34</b>	Forests and Fisheries	Clear-cutting Selective cutting Sustainable yield Fishery Aquaculture	I can describe how forests can be managed as renewable resources. I can describe how fisheries can be managed for a sustainable yield.	S4 C3 PO2 PO3 S1 C1 PO1 PO2  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 35</b>	Forests and Fisheries Tree Ring Lab	Clear-cutting Selective cutting Sustainable yield Fishery Aquaculture	I can describe how forests can be managed as renewable resources. I can describe how fisheries can be managed for a sustainable yield.	S4 C3 PO2 PO3 S1 C1 PO1 PO2 S3 C1 PO1 PO2 PO3 ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 36</b>	Keystone Species  Biodiversity	Biodiversity Keystone Species Endangered Species Threatened Species Habitat Destruction Habitat Fragmentation Poaching Captive Breeding Understory, Desert, Grassland, Savanna, Deciduous tree, Tundra, Permafrost	I can explain the value of biodiversity. I can identify the factors that affect biodiversity. I can name some human activities that threaten biodiversity. I can list some ways to protect biodiversity.	S3 C1. PO1 PO2  ACCRS 6-8 RST.4 RST.9 RST.10
<b>Week 37</b>	Environmental Issues	Natural Resources Renewable resource Nonrenewable resource Pollution Environmental Science	I can identify the general categories of environmental issues. I can describe how decision makers balance opposing needs and concerns.	S4 C3 PO4 PO5 ACCRS 6-8 RST.4 RST.9 RST.410

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<b>Week 38</b>	Finals			
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