Helena-West Helena School District

5th Grade Science

UNIT	1	2	3	4	5	6	7	8
NAME	We are Scientists	Building Blocks of Life	Light	Solar System	Matter and Energy	Simple Machines	Ecosystems	Geology
LENGTH	mini lessons	4 weeks	4 weeks	4 weeks	3 weeks	1 week	6 weeks	4 weeks
9 WEEKS	1st – 4th	1st	1st	1st & 2nd	2nd	2nd	2nd & 3rd	3rd
SLEs	NS.1.5.1 NS.1.5.2 NS.1.5.3a NS.1.5.3b NS.1.5.3c NS.1.5.3d NS.1.5.4a NS.1.5.4b NS.1.5.4c NS.1.5.4d NS.1.5.4e NS.1.5.4f NS.1.5.5 NS.1.5.6 NS.1.5.7 NS.1.5.8 NS.1.5.9	LS.2.5.1 LS.2.5.2 LS.2.5.3 LS.2.5.4a LS.2.5.4b LS.2.5.5 LS.2.5.6 LS.2.5.7 LS.2.5.8 LS.2.5.9 LS.2.5.10 LS.2.5.11	PS.7.5.1a PS.7.5.1b PS.7.5.1c PS.7.5.2 PS.7.5.3 PS.7.5.4 PS.7.5.5 PS.7.5.6	ESS.10.5.1 ESS.10.5.2 ESS.10.5.3 ESS.10.5.4 ESS.10.5.5 ESS.10.5.6	PS.5.5.1 PS.5.5.2 PS.5.5.3 PS.5.5.4 PS.5.5.5a PS.5.5.5b PS.5.5.6 PS.5.5.7 PS.5.5.8 PS.5.5.9 PS.5.5.10 PS.6.5.4 PS.6.5.5 PS.6.5.6	PS.6.5.1 PS.6.5.2a PS.6.5.2b PS.6.5.2c PS.6.5.2d PS.6.5.2e PS.6.5.2f PS.6.5.3 PS.6.5.7	LS.4.5.1a LS.4.5.1b LS.4.5.2 LS.4.5.3 LS.4.5.4 LS.4.5.5 LS.4.5.6 LS.4.5.7 LS.4.5.8 LS.4.5.9 LS.4.5.10 LS.4.5.11 LS.4.5.12 LS.4.5.13 LS.4.5.14a LS.4.5.14b LS.4.5.14c LS.4.5.14d LS.4.5.14e LS.4.5.14f LS.4.5.15 LS.4.5.16 LS.4.5.17a LS.4.5.17b LS.4.5.17c LS.4.5.18	ESS.8.5.1 ESS.8.5.2 ESS.8.5.3 ESS.8.5.4 ESS.8.5.5 ESS.8.5.6 ESS.8.5.7a ESS.8.5.7b ESS.8.5.7c ESS.8.5.8 ESS.8.5.9 ESS.8.5.10 ESS.8.5.11 ESS.8.5.12 ESS.8.5.13 ESS.9.5.1 ESS.9.5.2 ESS.9.5.3
READING RST 6-8 1								
READING RST 6-8 2								
READING RST 6-8 3								
READING RST 6-8 4								
READING RST 6-8 5								
READING RST 6-8 6								
READING RST 6-8 7								
READING RST 6-8 8								
READING RST 6-8 9								
WHST 1								
WHST 2								
WHST 4								

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	5								
	6*								
	7								
	8								
	9								
MATH STRAND	1		6NS	6NS		6NS	6NS	6NS	6NS
	2		6SP & 6NS	6NS		6SP &6NS	6NS	6NS	6SP & 6NS
	3		6SP		6RP	6RP &6SP			6RP & 6SP
	4		6SP	6SP4		6SP	6SP	6SP	6SP
	5		6NS	6NS		6NS	6NS	6NS	6NS
	6								
MATH PRACTICES	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								

* Standard is equivalent to NS.13.B.3

UNIT	1	2	3	4	5	6	7	8
NAME	We are Scientists	Building Blocks of Life	Light	Solar System	Matter and Energy	Simple Machines	Ecosystems	Geology
TRANSFERS	*Students will be able to independently use their learning to…* Follow procedures and use appropriate tools to ensure accuracy and validity.	*Students will be able to independently use their learning to…* Explain hierarchical relationships between organisms, concepts, and objects.	*Students will be able to independently use their learning to…* Identify the different ways in which light interacts with matter.	*Students will be able to independently use their learning to…* Relate the physical characteristics of planetary objects to gravity and its effect on weight.	*Students will be able to independently use their learning to…* Distinguish between physical and chemical changes based on molecule placement and movement.	*Students will be able to independently use their learning to…* Apply appropriate simple machines to situations to increase the amount of work done while decreasing the energy expended.	*Students will be able to independently use their learning to…* Create food webs using different plant and animal populations in an ecosystem while identifying biotic and abiotic factors affecting population growth.	*Students will be able to independently use their learning to…* Narrate Earth's story through the study of fossil records and geologic time.

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VOCABULARY	Observation Accuracy Senses Hypothesis Replication Control Variables Sample Mean Median Mode Range SI units x-axis y-axis Bar graph Double bar graph Conclusion Inquiry Long-term Data Scientific fact Scientific opinion Prediction Theory Hypothesis Law	Cell theory Scientific theory Cell Microscope Microscopic Cell function Animal cell Plant cell Cell membrane Nucleus Cytoplasm Organelle Cell wall Chloroplast Pigments Chlorophyll Photosynthesis Carbon dioxide Water Oxygen Glucose Sunlight (energy) Cellular respiration Mitochondria Cellular biologist	Light Matter Absorption Refraction Reflection Transparent Translucent Opaque Perception Color White light Transmission Scattering Physics Physicist	Physical characteristics Stars Size Color Brightness Magnitude Planets Satellites Asteroids Meteors Comets Shape Density Atmosphere Average distance Orbital path Moons Surface Composition Astronomical distance Mass Weight Metric Kilograms Gravity Constant Astronomy Astronomer	Atoms Matter Physical properties Physical changes States of matter Solid Liquid Gas Plasma Physical properties of matter Molecules Kinetic energy Potential energy Expansion Contraction Chemistry Chemist Physics Physicist Motion	Simple machines Lever Wheel & axle Pulley Incline plane Wedge Screw Invention Discoveries Engineers Physicists	Population Community Ecosystem Biosphere Terrestrial Aquatic Energy Energy pyramid Transfer Producer Consumer Decomposer Habitat Categorize Food web Food chain Stress Overgrazing Overpopulation Natural disaster Native Non-native Species Urban Human Limiting factors Carrying capacity Space Nitrogen Nitrogen cycle Herbivore Carnivore Omnivore Carbon cycle Carbon dioxide Oxygen Carbon dioxide-oxygen cycle Conservation Mass Matter Conservation of mass Open aquaria Closed aquaria Biotic (living) Abiotic (non-living) Predator Prey Parasite Parasitism Scavenger Field study Data Conclusion Observation Symbiotic Relationship Mutualism Biology Biologist	Elements Minerals Silicon Oxygen Iron Sodium Chlorine Calcium Carbon Hydrogen Aluminum Crystal Inorganic Particle Properties Moh's Hardness Scale Luster Streak Acid test Fluorescence Characteristics Sedimentary Metamorphic Igneous Magma Lava Geology Geologist Paleontology Paleontologist Weathering Erosion Rock cycle Humus Top soil Decay Nutrients Heat Pressure Deposition Process Continuous Fossil Continental drift Rock layers Mold Cast Imprint Trace Petrified Preserved Carbon film Extinct Environment Fossil record

LAB ACTVITIES	"Watch Yeast Feast!" hypothesize why one bag (yeast, water, sugar) fills up with gas and another (yeast and water) does not "Keeping Green" plant experiment using variables and analyzing data to find evidence which supports the hypothesis	"Get Closer" use microscopes to draw and compare cells	"Let It Shine" infer the amount of light materials absorb by using a flashlight, prism, and a lens "Transparent, Translucent, or Opaque?" test different items to determine whether they are transparent, translucent, or opaque	"Scaling the Solar System" create a floor scale of the solar system and use the model to collaborate and analyze data regarding the planets "Star Search" create a model and use numbers to compare stars of a constellation to the Sun	"Cool the Air" use plastic bottles and balloons to demonstrate expansion and contraction "Monster Trucks" use a ramp, a toy truck, and a rubber band to measure distance traveled and the effect of adding mass to the truck "Roller Ball" use clear plastic tubing and a marble and make inferences regarding the effects the height of the truck has on the speed a marble travels through the tubing	"Ramping It Up" use a spring scale and 50g mass to show the effects of using a ramp; explain why the amount of force needed to pull the mass is different when using a spring scale	Life" set up a terrarium and observe interactions between earthworms and their environment; infer what earthworms need to survive "Compare Climates" make line graphs and use the data to describe temperature and precipitation patterns of two locations "Model Energy Flow" draw a chart which includes illustrations of producers and consumers; use numbers to determine how much energy is left for consumers at different levels on the chart "Limits to Growth" place different numbers of seeds in cups with soil, and	"A Model World" create and use a model of Earth to describe the layers which make up Earth's structure "Picking a Pattern" find the locations of earthquakes and volcanoes, mark them on a blank world map; draw conclusions about patterns seen and predict the relationship between the planet's plates and the places where most volcanoes and earthquakes occur "Make a Mountain!" model the movement of one of Earth's places with moist sand, wax paper, and shoebox

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