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(Science/Kindergarten)

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1st Quarter (August 3, 2021 to October 7, 2021) **1st Quarter (8 Performance Objectives)** **Physical Science, Earth and Space Science, Life Science**				
Timeline & Resources	**AZ College and Career Readiness Standard**	**Essential Question (HESS Matrix)**	**Learning Goal**	**Vocabulary (Content/Academic)**
Science Fusion **Unit 10:** *Motion* *Position* Lesson 29	*Physical Science* **K.P2U2.2: Investigate** how senses can detect light, sound, and vibrations even when they come from far away; use the collected evidence to **develop and support an explanation.** *(Geometry)* **K.G.1** Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.)	**Lesson 29** **Where Things Are** How do we describe location?	Students will: • Observe the location of a thing in relation to another thing. • Use position terms, such as *above*, *below*, *behind*, *in front of*, and *beside* to describe the location of something. K.G.1 I can describe where objects are located. Students will use the words *above* and *below* to describe or place an object with respect to another object.	**Lesson 29** above below beside behind in front of left right in out

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Science Fusion **Unit 1:** *Doing Science* Lesson 1 Lesson 2 Lesson 3	*Physical Science* **K.P2U2.2: Investigate** how senses can detect light, sound, and vibrations even when they come from far away; use the collected evidence to **develop and support an explanation.**	**Lesson 1** **Our Senses** How do we use our senses?	Students will: • Identify and describe the five senses. • Use the five senses to observe and learn about the world. • Identify the sensory organ associated with each sense. • Observe many properties of one thing.	**Lesson 1** touch smell hear see taste
	K.P2U2.2: Design and evaluate a tool that helps people extend their senses.	**Lesson 2** **Science Skills** How do we use science skills?	Student will: • Observe and describe things. • Pose questions about things and surroundings. • Identify science processes. • Demonstrate how science process can be used to describe things and investigate questions.	**Lesson 2** observe compare measure sort

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		Lesson 3 **Science Tools** How do we use science tools?	Students will: • Identify science tools. • Recognize how science tools help in investigations. • Use a hand lens, a measuring cup, a thermometer, a balance, and a ruler to help analyze things. • Describe safe ways to conduct investigations.	**Lesson 3** hand lens thermometer measuring cup balance ruler
Science Fusion **<u>Unit 7:</u>** *Weather and Seasons* Lesson 20 Lesson 21 Lesson 22	*<u>Earth and Space Science</u>* **<u>K.E1U1.3:</u> Observe, record, and ask questions** about temperature, precipitation, and other weather data to identify patterns or changes in local weather.	**Lesson 20** **Weather** What is weather?	Students will: • Identify and describe weather conditions. • Observe and determine the effects of weather on human activities. • Observe and describe day-to-day weather changes.	**Lesson 20** weather sunny snowy rainy cloudy windy

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	K.E1U1.4: Observe, describe, ask questions, and predict seasonal weather patterns; and how those patterns impact plants and animals (including humans).	**Lesson 21** **Measuring Weather** How can we measure weather?	Students will: • Identify and demonstrate the use of a thermometer and a windsock. • Use common tools to measure weather. • Use tools to observe and identify weather changes from day to day.	**Lesson 21** thermometer windsock high temperature low temperature
	K.E1U1.4: Observe, describe, ask questions, and predict seasonal weather patterns; and how those patterns impact plants and animals (including humans).	**Lesson 22** **Seasons** What are the seasons?	Students will: • Identify and describe the characteristics of the four seasons. • Identify seasonal changes as a repeating pattern. • Describe how the seasons affect plants and animals.	**Lesson 22** spring summer fall winter

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2nd Quarter (October 12, 2021 to December 17, 2021) **2nd Quarter (8 Performance Objectives)** **Physical Science, Earth and Space Science, Life Science**				
Timeline & Resources	**AZ College and Career Readiness Standard**	**Essential Question (HESS Matrix)**	**Learning Goal**	**Vocabulary (Content/Academic)**
Science Fusion **Unit 5:** *Day and Night* Lesson 15 Lesson 16	*Earth and Space Science* **K.E2U1.5: Observe and ask questions** about patterns of the motion of the sun, moon, and stars in the sky.	**Lesson 15** **Day Sky** What is in the day sky?	Students will: • Observe and describe what the sky looks like during the day. • Recognize that the sun can only be seen in the daytime. • Recognize that things are pulled toward the ground unless something holds them up. • Observe that the occurrence of night and day is a repeating pattern. • Observe that things can be big and things can be small as seen from Earth.	**Lesson 15** clouds sky sun

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		Lesson 16 **Night Sky** What is in the night sky?	Students will: • Describe the night sky. • Identify objects in the night sky. • Observe that moon can be seen at night and sometimes during the day.	**Lesson 16** stars moon
Science Fusion **<u>Unit 6:</u>** *Earth's Resources* Lesson 17 Lesson 18 Lesson 19	*<u>Earth and Space Science</u>* **<u>K.L2U1.8</u>** Observe, ask questions, and explain the differences between the characteristics of living and non-living things.	**Lesson 17** **Rocks** What are rocks? **Lesson 18** **Water** What is water?	Students will: • Observe and describe rocks. • Compare and sort rocks. • Give examples of ways rocks are useful. Students will: • Recognize that water is found in lakes, rivers, ponds, and oceans. • Understand that rivers contain fresh water and oceans contain salt water. • Describe the physical properties of water, including clarity and color.	**Lesson 17** rocks **Lesson 18** water

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		Lesson 19 **Natural Resources** How do we use and conserve Natural Resources?	Students will: • Identify some natural resources. • Give examples of ways rocks, soil, and water are useful. • Describe ways to dispose of natural resources and to conserve natural resources for future use. • Explore that some materials can be used over and over again. • Explain how to interact with the environment in ways that are respectful of it.	**Lesson 19** natural resources rock soil water
Science Fusion **Unit 8:** *Matter* Lesson 23 Lesson 24 Lesson 25	*Physical Science* **K.P2U1.1** Investigate how senses can detect light, sound, and vibrations even when they come from far away; use the collected evidence to develop and support an explanation. **K.P2U2.2** Design and evaluate a tool that helps people extend their senses.	**Lesson 23** **Matter** How do we describe and sort matter?	Students will: • Identify matter as a solid, a liquid, or a gas. • Observe and describe properties of objects. • Compare and sort objects based on observable properties.	**Lesson 23** matter

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		Lesson 24 **Matter Can Change** How can we change matter?	Students will: • Describe how paper and clay can be changed. • Recognize that the shape of materials can be changed by cutting, tearing, crumpling, smashing, or rolling. • Recognize physical changes of matter.	**Lesson 24** change
		Lesson 25 **Heating and Cooling Matter** How can heating and cooling change matter?	Students will: • Observe, record, and discuss how matter can be changed by heating. • Observe, record, and discuss how matter can be changed by cooling.	**Lesson 25** heat cool

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3rd Quarter (January 3, 2022 to March 11, 2022) **3rd Quarter (8 Performance Objectives)** **Physical Science, Earth and Space Science, Life Science**				
Timeline & Resources	**AZ College and Career Readiness Standard**	**Essential Question (HESS Matrix)**	**Learning Goal**	**Vocabulary (Content/Academic)**
Science Fusion **<u>Unit 9:</u>** *Energy* Lesson 26 Lesson 27 Lesson 28		**Lesson 26** **Sound** What is sound?	Students will: • Observe that sounds is made when objects vibrate. • Identify sounds and the sources of their vibrations. • Compare sounds for loudness, pitch, and rhythm.	**Lesson 26** sound vibrate
		Lesson 27 **Light** What is light?	Students will: • Recognize the sun as Earth's source of light. • Identify human-made sources of light. • Recognize how paper can be changed by exposure to sunlight.	**Lesson 27** light

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		Lesson 28 **Heat** What is heat?	Students will: • Recognize the sun as Earth's source of heat. • Recognize that sound, light, and heat are kinds of energy.	**Lesson 28** heat
Science Fusion **<u>Unit 10:</u>** *Motion* Lesson 30 Lesson 31 Lesson 32		**Lesson 30** **How Things Move** How do things move? **Lesson 31** **Changing How Things Move** How can we change the way things move?	Students will: • Observe and describe the ways things can move. • Observe and describe movements as fast or slow. Students will: • Identify push and pull as ways to move things. • Observe that a push or a pull can change the way a thing is moving. • Identify gravity as a force. • Understand that gravity pulls things down to the ground.	**Lesson 30** zigzag up and down round and round straight back and forth fast slow **Lesson 31** push pull

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		Lesson 32 **Magnets** Which objects do magnets attract?	Students will: • Observe and describe how magnets react to objects made or iron and steel. • Sort objects according to whether or not a magnet attracts them. • Observe that magnets can cause some objects to move without touching them.	**Lesson 32** magnets attract
Science Fusion **Unit 2:** *Animals* Lesson 4 Lesson 5 Lesson 6	*Life Science* **K.L2U1.8** Observe, ask questions and explain the differences between the characteristics of living and non-living things.	**Lesson 4** **Living and NonLiving** What are living things?	Students will: • Classify things as living and nonliving. • Describe characteristics of living things. • Describe characteristics of nonliving things. • Sort living and nonliving things.	**Lesson 4** living things nonliving things

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		Lesson 5 **Real and Pretend** What is real? What is pretend?	Students will: • Recognize that some books and other media portray animals and plants with characteristics that they do not have in real life. • Identify characteristics of real animals and plants and pretend animals and plants. • Compare real animals and plants and pretend animals and plants.	**Lesson 5** real pretend
	K.L1U1.7 Observe, ask questions, and explain how specialized structures found on a variety of plants and animals (including humans) help them sense and respond to their environment.	**Lesson 6** **Many Animals** What are animals like?	Students will: • Compare animals by size, shape, or body coverings. • Observe and describe the similarities and differences in the appearance of animals. • Identify and name body parts of animals. • Identify ways animals move.	**Lesson 6** fur feathers scales

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4th Quarter (March 21, 2022 to May 26, 2022) **4th Quarter (8 Performance Objectives)** **Physical Science, Earth and Space, Life Science**				
Timeline & Resources	**AZ College and Career Readiness Standard**	**Essential Question (HESS Matrix)**	**Learning Goal**	**Vocabulary (Content/Academic)**
Science Fusion **<u>Unit 2:</u>** *Animals* Lesson 7 Lesson 8		**Lesson 7** **What Animals Need** What do animals need?	Students will: • Observe and illustrate what an animal needs. • Recognize that animals need food, water, air, and shelter to survive. • Identify how people help pets meet their needs. • Observe similarities between the basic needs of humans and the basic needs of other animals.	**Lesson 7** food air water shelter
		Lesson 8 **Animals Grow and Change** How do animals grow and change?	Students will: • Describe animal's life cycle. • Recognize that an animal's growth and change occur gradually. • Recognize that some young animals look like their parents and some do not.	**Lesson 8** life cycle

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			• Sequence picture to show how animals grow and change.	
Science Fusion **<u>Unit 3:</u>** *Plants* Lessons 9 Lesson 10 Lesson 11 Lesson 12	**<u>K.L1U1.7</u>** Observe, ask questions, and explain how specialized structures found on a variety of plants and animals (including humans) help them sense and respond to their environment.	**Lesson 9** **Many Plants** What are plants like? **Lesson 10** **What Plant Need** What do plants need?	Students will: • Identify trees, shrubs, and grasses as kinds of plants. • Draw conclusions about kinds of plants. • Observe and describe the sizes and shapes of plants. • Sort plants into groups based on their physical characteristics. • Examine variations among individuals of the same kind of plants. Students will: • Recognize that plants need water, air, light, soil and space to grow. • Observe and compare the growth of plants. • Infer reasons why plants are healthy or not healthy.	**Lesson 9** tree shrub grass **Lesson 10** light air soil space to grow water

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			• Predict the growth of a plant based on whether it is getting what it needs.	
		Lesson 11 **Plant Parts** What are some plant parts?	Students will: • Recognize that stems, roots, leaves, flowers, fruits, and seeds are parts of plants. • Observe and identify the parts of a plant. • Describe how plant parts help a plant live.	**Lesson 11** leaf fruit flower roots stem seeds
		Lesson 12 **Plants Grow and Change** How do plants grow and change?	Students will: • Describe the sequence of stages in a plant's life cycle. • Observe stages that are part of the life cycle of a plant: seed, seedlings, plant, flower, and fruit. • Identify ways that young plants resemble their parent plants.	**Lesson 12** flower seed sprout seedling adult

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Science Fusion **<u>Unit 4:</u>** *Habitats* Lesson 13 Lesson 14		**Lesson 13** **Homes for Living Things** Where do animals and plants live? **Lesson 14** **Animals and Plants Together** Why do animals and plants need one another?	Students will: • Understand that animals and plants are found in different habitats and environments. • Know that animals need food, water, shelter, and space to live. • Describe different environments where animals and plants live. • Make a model environment for animals and plants. Students will: • Describe how many animals and plants depend on one another. • Understand how animals and plants can change their surroundings.	**Lesson 13** habitat **Lesson 14** shelter

(Arizona Science Standards 2018, Arizona Department of Education)