

# Grade 1

## Earth and Space Science

### 1 The sun is the principal source of energy. 1.ESS.1

- Recognize that it takes time for hot things to cool down. 1.ESS.1.A
- Recognize that the longer something is in the sun the warmer it becomes (monitor air temperature morning, noon, afternoon on a sunny day or monitor the temperature of a glass of water in the sun). 1.ESS.1.B
- Recognize that at night, it is dark and usually cooler because the sun is not visible. 1.ESS.1.C
- Recognize that when the sun is visible, there is light and it is usually warmer than night. 1.ESS.1.D
- Feel the sun on your face and describe the experience (warm). 1.ESS.1.E

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### 2 Water on Earth is present in many forms. 1.ESS.2

- Watch time lapse videos of how water changes the shape of the land (e.g., Grand Canyon, stream erosion) and describe the changes observed. 1.ESS.2.A
  - Describe what happens to the dirt as rain falls on it (set up a mound of dirt and simulate rainfall or observe erosion in the schoolyard). 1.ESS.2.B
  - Watch water freeze and melt. Compare the physical properties before and after melting (e.g., temperature, weight, texture). 1.ESS.2.C
  - Identify places in nature where you can find solid (snowflakes, glaciers, hail) and liquid (rain, rivers) water. 1.ESS.2.D
  - Observe snowflakes under a magnifying glass and describe how their shapes vary 1.ESS.2.E
  - Identify various forms of water (snow, rain, sleet, fog, dew) in media. 1.ESS.2.F
  - Relate water to precipitation in weather (rain, snow, sleet). 1.ESS.2.G
  - Recognize that fog is a cloud close to the ground. 1.ESS.2.H
  - Recognize that clouds are made of water. 1.ESS.2.I
  - Identify pictures of various locations of water (lakes, ponds, streams, oceans, dew on grass). 1.ESS.2.J
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## Life Science

### **1 Living things have basic needs, which are met by obtaining materials from the physical environment.** 1.LS.1

- Match organisms to environments that will meet their basic needs. 1.LS.1.A
  - Recognize that every living thing has basic needs (food/energy, water and temperature). 1.LS.1.B
  - Recognize that plants and animals require water from the environment. 1.LS.1.C
  - Recognize that animals require certain temperatures to survive (e.g., have feathers/fur, can only live in certain climates, or need homes, nests or dens). 1.LS.1.D
  - Recognize that plants require certain temperatures to grow. 1.LS.1.E
  - Recognize that plants get energy from sunlight. 1.LS.1.F
  - Recognize that animals get energy from food. 1.LS.1.G
  - Name some examples of human basic needs (e.g., food, water, shelter). 1.LS.1.H
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### **2 Living things survive only in environments that meet their needs.** 1.LS.2

- Recognize that seasonal changes in environments affect survival of living things (more living things die during winter when food and warmth are scarce). 1.LS.2.A
  - Describe how seasonal changes affect living things (e.g., in winter trees lose leaves, birds fly south and some animals hibernate). 1.LS.2.B
  - Recognize that different environments support different living things. 1.LS.2.C
  - Describe differences in environments (e.g. desert is hot and dry, forest is shady and has rainfall). 1.LS.2.D
  - Describe how an environment can provide shelter and protection to living things (e.g., trees to build nests, places to hide from predators, shade from hot sun). 1.LS.2.E
  - Identify different types of shelter (e.g., nest, cave, den, burrow, house). 1.LS.2.F
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## Physical Science

### 1 Properties of objects and materials can change. 1.PS.1

- Design a way to keep your crayons from melting outside in the hot sun. 1.PS.1.A
- Know that all things can melt but some need to be at higher temperatures than we have at a school (e.g., see what happens when you try to melt objects with higher melting points (metal, glass), watch a video of glass blowing or metal in a blast furnace.) 1.PS.1.B
- Identify common substances that can melt at low temperatures (e.g., chocolate, butter, crayons). 1.PS.1.C
- Identify how an object changes when it is melted and refrozen (e.g., put an ice cube in a baggie, let it melt, then refreeze it, describe ways the new ice is different from the original ice cube). 1.PS.1.D
- Recognize that the mass of water before and after melting or freezing is the same. 1.PS.1.E
- Predict what would be needed to turn the water back into ice. 1.PS.1.F
- Predict ways to melt an ice cube more quickly (shine light on it, put it in the sun, heat it in a pan). 1.PS.1.G
- Describe what happens to water when you add or subtract heat from it (temperature changes, freezes into ice). 1.PS.1.H
- Describe how the properties of water change as it melts from ice to liquid water. 1.PS.1.I
- Identify whether a substance is a solid or a liquid. 1.PS.1.J

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## **2 Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth. 1.PS.2**

- Identify what is pushing or pulling on moving objects in the environment (leaves rustling, cars passing, a flag waving). 1.PS.2.A
- Show a way to apply a force (push or pull) to make a moving object turn in a new direction (blow on a floating bubble, kick a rolling soccer ball). 1.PS.2.B
- Identify a push or pull as a force. 1.PS.2.C
- List as many ways as possible to push or pull (blowing, kicking, tugging on a rope). 1.PS.2.D
- Describe what happens if you push or pull harder on an object. 1.PS.2.E
- Describe what happens when you push or pull an object. 1.PS.2.F
- Describe the motion of common objects (a swing, a hoola hoop, a soccer ball). 1.PS.2.G
- Demonstrate, describe or identify different ways to move objects, such as straight, zigzag, in a circle. 1.PS.2.H
- Recognize that moving things are changing their location (position). 1.PS.2.I
- Categorize things as moving or standing still, discuss what is different about things that are moving and things that are standing still. 1.PS.2.J
- Recognize that you cannot tell the location of something without comparing it to something else (in my backpack, behind the tree). 1.PS.2.K