2nd Grade Mystery Science Lesson Scope and Sequence Strand 2.2 Part 2 Salt Lake City School District 2021-2022

Strand 2.2 Living Things and Their Habitats
Living things (plants and animals, including humans) need water, air, and resources from the land to survive and live-in habitats that provide these necessities. The physical characteristics of plants and animals reflect the habitat in which they live. Animals also have modified behaviors that help them survive, grow, and meet their needs. Humans sometimes mimic plant and animal adaptations to survive in their environment.

Standard 2.2.3 Animal and Plant Relationships
Develop and use a model that mimics the function of an animal dispersing seeds or pollinating plants. Examples could include plants that have seeds with hooks or barbs that attach themselves to animal fur, feathers, or human clothing, or dispersal through the wind, or consumption of fruit and the disposal of the pits or seeds. (LS2.A)

Standard 2.2.4 Design a Solution that Mimics Structure and Function
Design a solution to a human problem by mimicking the structure and function of plants and/or animals and how they use their external parts to help them survive, grow, and meet their needs. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs. Examples could include a human wearing a jacket to mimic the fur of an animal or a webbed foot to design a better swimming fin. (LS1.A, LS1.D, ETS1.A, ETS1.B, ETS1.C)

Date and SEEd Standard	Mystery Science Lesson	Materials and Assessments
February 14 SEEd Standard 2.2.3 **Science and Engineering Practice:** Develop and use a model **Crosscutting Concept:** Structure and Function	**Plant Adventure Unit** Mystery Science Handouts Pdf Pages 22-49. Anchor lesson: Superbloom The anchor phenomenon for this unit is an amazing burst of life in a place called Death Valley. How can huge fields of flowers suddenly grow in one of the hottest, driest places on Earth?	**Materials per Student:** **See-Think-Wonder** worksheet **Superbloom Cycle** printout
February 21 SEEd Standard 2.2.3 **Science and Engineering Practice:** Develop and use a model **Crosscutting Concept:** Structure and Function	**Lesson 1:** How did a seed travel halfway around the world? In this lesson, students will learn how seeds must get away from their parent plant to survive. In the activity, Fly Your Own Seed, students create a model seed from paper. Then, they release these seeds to model how they disperse and observe if any seeds can escape the parent plant's "Zone of Darkness" and survive.	**Materials per Student:** Glider printout Rotocopter printout Spinner printout Chair Scissors Black construction paper Medium binder clips (1 1/4") **Literature Connection:** Newsela Article: How plants spread their seeds Plant Life: What is a Seed? ReadWorks.org Seeds need to move **Assessment:**

		Mystery 1: How did a tree travel halfway around the world? Answer Key
February 28 SEEd Standard 2.2.3 **Science and Engineering Practice:** Planning and carrying out an investigation **Crosscutting Concept:** Cause and effect	**Lesson 2:** Could a plant survive without light? In this lesson, students investigate how plants need water and sunlight to grow. In the two-part activity, Seeds — Light and Dark, students experiment with growing radish seeds in light and dark conditions. They plant them in cups, place half of the cups in sunlight, and put the other half in a dark container. Three to seven days later, students compare the seedlings and then watch what happens when all are placed in sunlight	**Materials per Student:** Draw the Radishes worksheet Crayons Aluminum foil Aluminum plan Baking soda Dixie cups (3 oz.) Paper plates Spray bottles Sticker labels (1x3) Peat Pellets Radish Seeds **Literature Connection:** ReadWorks.org What do Plants Need? **Assessment:** Mystery 2: Could a plant survive without light? Answer Key
March 7 SEEd Standard 2.2.3 **Science and Engineering Practice:** Planning and carrying out an investigation **Crosscutting Concept:** Cause and effect	**Lesson 3:** Why do trees grow so tall? In this lesson, students will learn the importance of sunlight to plants, which is collected by their leaves. In the activity, Grass Head, students make a person out of a paper towel and a popsicle stick with grass for hair! Then, students make predictions about the direction that the grass will grow based on the orientation (standing up or lying down) that they place the Grass Head.	**Materials per Student:** **Grass Head** worksheet Ceramic coffee mug Pen Rulers Craft sticks Paper plates Paper towels Plastic plates Rubber bands (#12) Solo cups (9oz) Fast sprouting grass seeds Nylon knee socks **Literature Connection:** ReadWorks.org How Plants Grow When Trees get Thirsty **Assessment:** Mystery 3: Why do trees grow so tall? Answer Key
March 14	**Lesson 4:** Should you water a cactus?	**Materials per Student:** Grass head from lesson 3

SEEd Standard 2.2.2 & 2.2.3 **Science and Engineering Practice:** Analyzing and interpreting data **Crosscutting Concept:** Cause and effect	In this lesson, students will learn that plants have different needs in terms of sunlight and water. In the activity, Grass Head Revisited, students will examine the Grass Head they made in the previous lesson. Earlier, they predicted which way the grass would grow. Now they will discuss what happened and why.	Grass head printout Paper plates **Literature Connection:** The Giant Saguaro Newsela Article: Big Questions: Can plants feel pain Southwest's Sonoran Desert may be hot and dry, but it is full of activity ReadWorks.org What lives in the desert? Unite for Literacy Spring Comes to the Desert The Desert Epic Books Prickly Plants **Assessment:** Mystery 4: Should you water a cactus? Answer Key
March 21 SEEd Standard 2.2.2 & 2.2.3 **Science and Engineering Practice:** Develop and use a model **Crosscutting Concept:** Cause and effect	**Lesson 5:** Where do plants grow best? In this lesson, students will practice thinking like gardeners. In the activity, students play Plant Survivor, a game that encourages students to think about what plants need and how habitats change over time.	**Materials per Student:** **Plant Cards** printout **Literature Connection:** Newsela Article: Goats clean up a famous cemetery ReadWorks.org Insects and animals that pollinate plants Text Set Unite for Literacy Let's Grow **Assessment:** Mystery 5: Where do plants grow best? Answer Key
April 4 SEEd Standard 2.2.4 **Science and Engineering Practice:** Obtain, evaluate, and communicate information **Crosscutting Concept:** Structure and Function	**Performance Task:** How can anything live in Death Valley?	**Materials per Student:** **Water and Life in Dry Death Valley** printout **Assessment:** Plant Adventures Unit Assessment Answer Key