Name: _____ Class: _____

# Assessing the Learning Tracking Tool for Plants

Driving Question: __How does a radish plant grow, move, and function? _____

| **Activity Chunk**<br>Write the activity and your role in each circle. | **What did we do?**<br>Summarize key information and activities with a description and/or picture. | **What Did We Figure Out?**<br>Summarize what we figured out about the phenomena that helps us answer the driving question. | **What Are We Asking Now?**<br>What additional information do you need to answer the driving question? |
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| Expressing Ideas and Questions<br>Questioner | Take a pretest and share initial ideas on the Expressing Ideas and Questions Tool about plant growth, identifying what plants need to grow and gain mass. | We already have some ideas about how a radish plant grows, moves, and functions. We also have lots of questions! | What makes up plants? |
| Questions about Plants | "Zoom into" food and examine nutrition labels to learn about the materials in plants, animals, and food including organic materials (fats, carbohydrates, and proteins). | Plants are made of small and large organic molecules that contain matter and chemical energy, as well as water and minerals. | Where does a plant's mass come from? What happens when plants are left in the light and in the dark? |
| Investigating Plants<br>Investigator | Conduct investigations to explore what happens when plants grow and when plants are left in the light and in the dark. Use the Predictions and Planning Tool and the Evidence-Based Arguments Tool. | The mass of the plant increased while the mass of the paper towel (or gel) remained the same. In the dark, $CO_2$ leaves the plant and enters the air. In the light, $CO_2$ leaves the air and moves into the plant. | How do plants get food and energy? |
| Explaining How Plants Make Food, Move, and Function<br>Explainer | Model cellular respiration and photosynthesis using molecular model kits and use the Explanations Tool to explain what happens when plants make food, move, and function. | Plants make glucose and $O_2$ from $CO_2$ and $H_2O$, the process of photosynthesis. Then they use some of that glucose for cellular respiration, combining glucose with $O_2$ to make $CO_2$ and $H_2O$ and providing energy for plant functions. | What happens to the food plants make during photosynthesis? |

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| Explaining How Plants Grow<br>Explainer | Trace the process involved in a potato growing on a poster of a potato, construct a model of the building of molecules through biosynthesis, and use the Explanations Tool to explain biosynthesis. | Some glucose that plants make is combined with soil minerals to make large organic molecules for growth (biosynthesis). | How do other plants grow, move, and function? |
| Explaining Other Examples<br>Explainer | Practice explaining photosynthesis, biosynthesis, and cellular respiration in other plants, and take the unit posttest. | All plants use the same carbon-transforming processes (photosynthesis, biosynthesis, and cellular respiration) to move, grow, and function. | How do decomposers grow, move, and function? |