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| Gingerbread Man SC.1.P.8.1  StEm Lesson | Grade Level: 1 | |
| **Lesson Objective:** Students will determine which objects sink and which float. They will create a raft for the Gingerbread Man to cross the river and escape the hungry fox. | **Benchmark Standard:** SC.1.P.8.1  Sort objects by observable properties, such ~~as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and~~ whether objects **sink or float**. | |
| **Essential Question:**  Do size or weight effect a materials ability to sink or float? (No) | **Vocabulary:**  Sink  Float | **Vocabulary Activities:**  Acting out words |
| **Preparation Directions:**  **Engage:**  Tell or read the story of the Gingerbread Man.  **Procedures:**  Ask students if the Gingerbread Man could have escaped if he had a boat or raft. Tell students to build a raft for the gingerbread man to escape. They will need to test the materials to find out what sinks and what floats.   1. BRAINSTORM: Students should look at the available materials and discuss which to use. They can test to find out if materials float or sink. 2. PLAN/DESIGN: design a blueprint of a raft made from materials that float. 3. BUILD: Students build their rafts 4. TEST: Students place rafts in water with gingerbread man aboard and test. 5. COLLECT AND ANALYZE DATA: Students draw rafts in their notebooks and label. They should write and draw what the raft did. Did it work or does it need to be improved? 6. REFLECT/IMPROVE: Students improve their rafts using the data they collected and information they learned from seeing other groups test their rafts. 7. EVALUATE/JUSTIFY: Discuss as a class, which raft would be the best raft for the Gingerbread Man and why? | **Materials:**  Maker Space with a variety of materials  A tub, sink, or plastic box of water.  A model of a gingerbread man. (This can be made from hardening clay)  **Sample Questions:**  Do big things float?  Do small things float?  Can a heavy thing float?  Can a light thing float?  (Repeat with sink instead of float)  Students should understand the properties of sink and float are **not** connected to the properties of size or weight. | |
| **Assessment:**  Students can sort a set of materials based on whether they sink or float. | |
| **Additional Resources:** Gingerbread Man story on YouTube  [**https://www.youtube.com/watch?v=P789cpZoxlU**](https://www.youtube.com/watch?v=P789cpZoxlU) | | |