|  |  |
| --- | --- |
| Gingerbread Man SC.1.P.8.1StEm 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.8.1Sort 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 materialsA 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) |