**Building Junk Boats**

**Learning Outcomes:**

SLE 3- Dn & construct devices that employ energy storing or energy-consuming components that cause motion (i.e. wind)

SLE 5- Compare designs

SLE 6: Identify steps you took & reflect

**Task:**

1. Using recyclable materials collected from students, they have to create a boat that will float and is powered by wind (Their own breath). They can come up with their own unique design.

2. Prior to building….They need to think about:

How to use a force like wind, to help move a load.

Load can not exceed the force

3. Build & test using tubs filled with water

4. After testing:

Students respond to the following in their science journals…

1. Draw a picture of their boat
2. What was a success? What worked well?
3. What challenges did they have? How did they overcome them?
4. What problems might someone have when relying on wind power? (as the wind source moves away, you lose your power. Hard to use wind power if there is no wind. Hard to change directions- you need to be able to control the sail)

**Science Notebook Rubric:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Criteria | Excellent | Proficient | Basic | Not Yet |
| Science Knowledge  | Written responses demonstrate a thorough understanding of science concepts | Written responses demonstrate an understanding of science concepts | Written responses show a basic understanding of science concepts, with support | Not yet showing understanding of science concepts |
| Neatness & Organization | Notebook is neat, organized and easy to read.  | Notebook is mostly neat, organized and easy to read.  | Student is working on neatness and organization. Requires support in this area. | Not yet able to show neatness or organization. |
| Illustrations and Diagrams | Entries have easy to read diagrams/illustrations that show comprehensive student understanding | Entries contain diagrams/illustrations that show student understanding | Some entries may contain diagrams/illustrations to show student understanding.  | Entries do not contain illustrations or diagrams yet.  |
| Teacher Comments:  |
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