

# Clay Boats Experiment/Powerpoint Project

## Key Questions:

- What shapes of clay float best?
- How much cargo (pennies) can a clay boat of 30g hold?

## Materials:

- 30 g of clay
- Triple Beam Balance
- Pennies
- Sink
- Digital Camera/Laptops

1. Your table will experiment with 30 g of clay. You will need to make more than 1 model of your boat.
2. You will need to form the clay so it will float AND carry pennies for a short time.
3. You will record your trials and findings in a notebook.
4. You will take digital pictures or video clips of your experiment trials and your final test.
5. You will present your findings in a powerpoint presentation to the class.

## Slide 1 – Title Slide

Your table's picture and give yourselves a name.

## Slide 2 – Molding Slide

Pictures of your group, molding the clay into boats.

## Slide 3 – Floating Slide Trials

Pictures of your group testing the clay boats.

## Slide 4 – Floating Slide

A picture/video of your boat or boats floating.

## Slide 5 – Cargo Slide Trials

Pictures of your group testing the boat with pennies.

## Slide 6 – Cargo Slide

A picture/video of your boat holding as many pennies as possible without sinking.

## Slide 7 – Learning Summary

Summarize what you learned. How easy or difficult was this project.

|                                | 1  | 2  | 3   | 4  | 5 Extension  |
|--------------------------------|--|--|---|--|--|
| <b>Recorded Data</b>           | Minimal documentation.   | Limited documentation. Some days are missing.                                | Documentation for each day is recorded with one sentence or two.            | Documentation for each day is recorded extensively.  | Typed Notes with a Cover and each day is recorded extensively.               |
| <b>Boat Designs/Testing</b>    | Uses only boat design and 1 trial.   | Uses 2 boat designs and 1 trial.   | Uses 2 boats and many trials and the boats float.                           | Multiple boats and trials and the boats float.   | Unique Designs with multiple boats and trials.                               |
| <b>Cargo Testing</b>           | Does Not Hold any pennies.   | 1 boat holds 1 penny.  | 1 boat holds 5 pennies.   | 1 boat holds more than 5 pennies.  | At least 1 boat holds more than 15 pennies                                   |
| <b>Powerpoint Presentation</b> | Does not include any motion, sounds or video clips. Missing some slide guidelines. | Follows most slide guidelines. Includes a video clip, some motion or sounds. | Follows all slide guidelines. Includes a video clip, some motion or sounds. | Follows all slide guidelines with motion, music, some slide transitions and more than 2 video clips. | Multiple Video Clips<br>Music Flows<br>Slide Transitions<br>Custom Animation |
|                                | <b>70-74</b>   | <b>75-82</b>   | <b>83-92</b>  | <b>93-100</b>  | <b>Bonus Points</b>  |
|                                | <b>Total Points</b>  |  |   | <b>Grade</b>   |  |