The Volume Challenge

Background:

1. What does the term volume mean to you?

2. Where have you heard this term before in your everyday life?

3. How can you determine the volume of a solid? a liquid? a gas?

Task 1:

4. Volume of the cube: _____ (don't forget your units!)

5. What formula did you use to calculate the volume of the cube?

6. Which tools were needed in order to determine the cube's volume?

7. Describe the process for calculating the volume of a cube.

Task 2:

8. Volume of liquid: _____ (don't forget your unit.)

9. Which tools can be used to determine the volume of the liquid?

10. Which tool provides the most accurate measurement? Explain.

11. Describe the process for determining the volume of a liquid.

Task 3:

12. Trace the shape in the space here:

13. Volume of object: _____ (don't forget your units!)

14. Which tools were needed in order to determine the object's volume?

15. What formula did you use to calculate the volume of the object?

16. Describe the process for calculating the volume of this object.

Task 4:

17. Volume of object: _____ (don't forget your units!)

18. Which tools were needed in order to determine the object's volume?

19. Describe the process for calculating the volume of this object.

20. Explain any other ways for finding the object's volume that you discussed or attempted.

Reflection:

21. Why is it important to measure accurately in science class?

22. Why is it important to have the right tools for the job?

23. Describe some of the difficulties that you had completing these tasks.