



Alka-Seltzer Lava Lamp

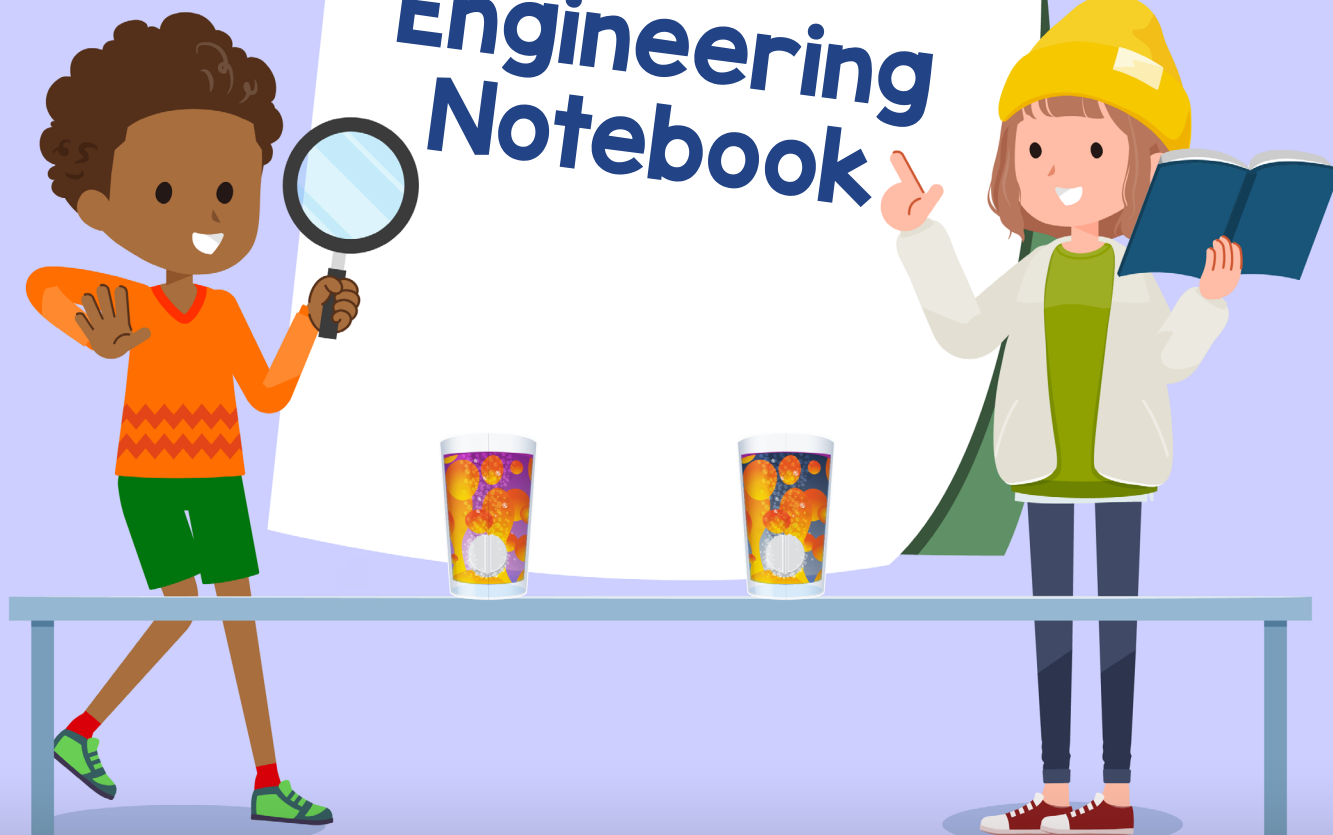
Grades
6-8

Student Activity Workbook

Name: _____

Date: _____

Engineering Notebook



Seaworthy STEM™ in a Box Series

Alka-Seltzer Lava Lamp

I Part 1:

- Fill your cup about 1/3 full of oil.
- Add 2-3 drops food coloring.
- Add about 1/3 cup of water.
- Stir and then let it sit until settled
- Record your observations – include a sketch and description.

Part 1 Observations



2

- ### Fun Fact!

The lava lamp was invented in 1948 by an English accountant named Edward Craven Walker. It took Craven Walker 15 years to perfect his design.



Part 2 Observations

[illegible]

3 Use a digital scale (set to kg) to find the mass of:

The cup of fluids _____ kg

2 unwrapped Alka-Seltzer tablets _____ kg

A latex glove _____ kg

4 Find the sum of the cup of fluids and the 2 Alka-Seltzer tablets:

The cup of fluids _____ kg

2 unwrapped Alka-Seltzer tablets _____ kg

Total _____ kg

5 Put the cup of fluid on the scale and then drop the 2 Alka-Seltzer tablets into the cup. After the Alka-Seltzer dissolves in the fluid the students should record the mass below.

Total _____ kg

6 Find the difference of the total mass of Part 4 and the total mass of Part 5.

Part 4 Total Mass _____ kg

Part 5 Total Mass - _____ kg

Difference _____ kg

7 Challenge: Using what you have at your table, how can you create a system where you can dissolve the 2 Alka-Seltzer tablets in the fluids without losing any mass?

- 8** Find the sum of the cup of fluids, the 2 Alka-Seltzer tablets, and a latex glove

The cup of fluids _____ kg

2 unwrapped Alka-Seltzer tablets _____ kg

A latex glove + _____ kg

- 9** Place the cup on the scale then insert the 2 Alka-Seltzer tablets followed by putting the glove on top of the cup to collect the CO₂. After the tablets are dissolved, record the mass below.

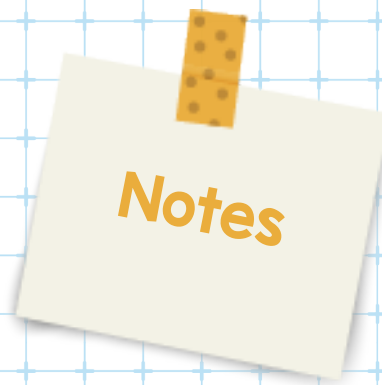
Total _____ kg

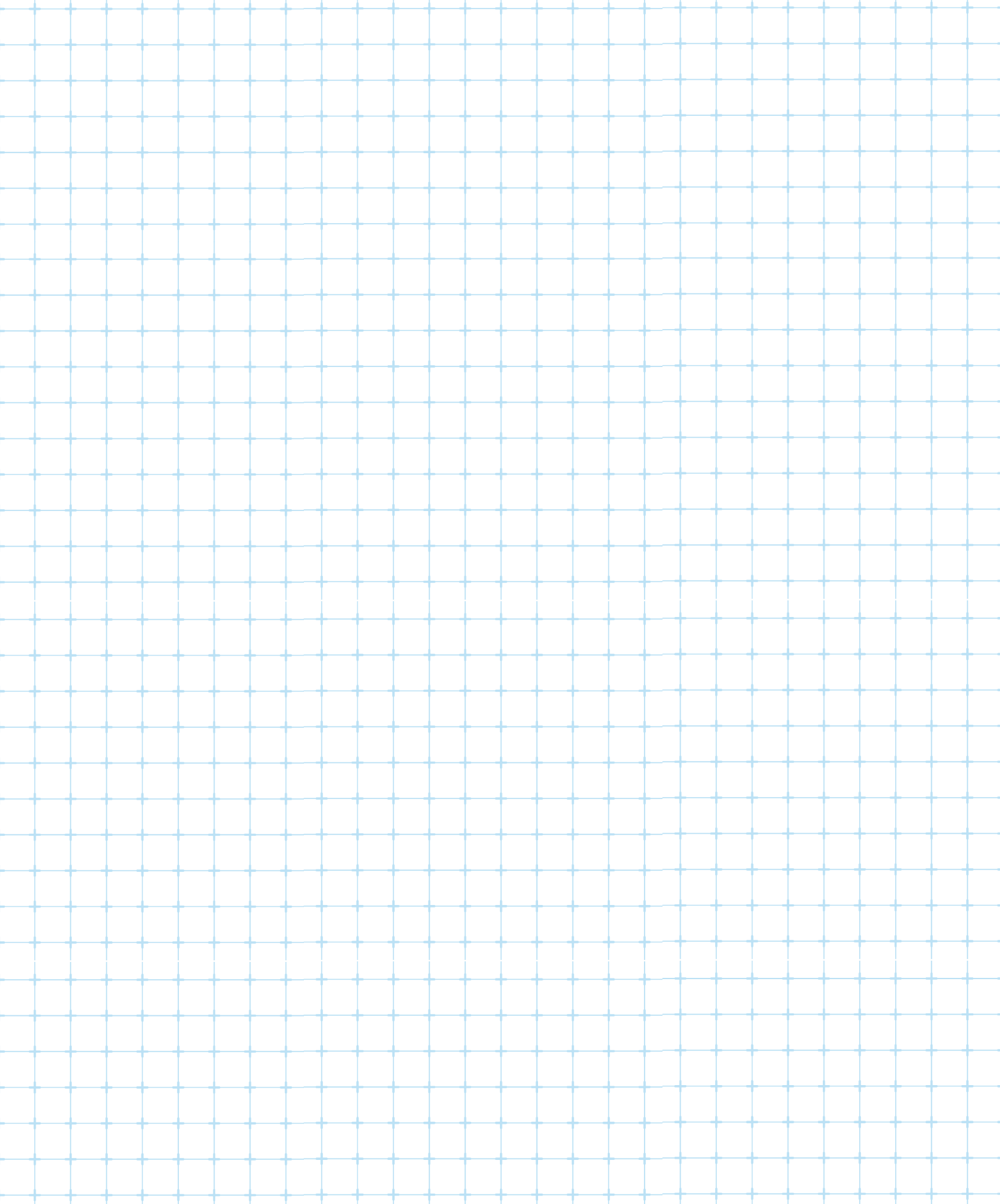
- 10** Find the difference of the total mass of Part 4 and the total mass of Part 5

Part 8 Total Mass _____ kg

Part 9 Total Mass - _____ kg

Difference _____ kg





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