CLAIMS, EVIDENCE, & REASONING

EXPRESSING YOUR THOUGHTS ABOUT A PROBLEM USING RESEARCH, EXPERIMENTATION, AND SUPPORT.
WRITING A CLAIM

No Personal Pronouns

- (I, you, we, your, ours, they, me, etc.)

Write a statement that answers the problem/question.

Example – Problem- Is air matter?

- Claim – Air is matter.
HOW DOES SURFACE TENSION AFFECT WATER IN SPACE?

Write a claim - Answer the question

• No personal pronouns
• Use your own knowledge about water
• How can we test this?

• Example – Surface tension will keep water in space together.
MORE CLAIM WRITING PRACTICE

- Is global warming caused by humans?

Claim: Global warming is caused by humans burning fossil fuels.

- Does the Airborne supplement prevent illness?

Claim: The supplement Airborne gives extra vitamins which help to prevent illnesses.
What is Surface Tension?

Evidence: Surface tension is the “skin” that is created by water when particles join together.

How might surface tension work for water on a flat surface?

Inference: On a flat surface, surface tension will keep water drops together.
COLLECT EVIDENCE

- Research – read text, articles, online sources, view videos
- Experiment – lab testing
- Collect DATA – numbers, observations
Water in Space

Evidence:

- Water forms a sphere in space.
- When prodded water moves but remains circular.
EXAMPLE PROBLEM: WHAT HAPPENS TO WATER IN SPACE?

Towel in Space

Evidence:

- Water clings to objects
- Water clings to water molecules
PROBLEM: HOW DOES SURFACE TENSION AFFECT WATER?

- Organize your evidence
- List two pieces of evidence for each source

<table>
<thead>
<tr>
<th>Source</th>
<th>Evidence 1</th>
<th>Evidence 2</th>
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<tbody>
<tr>
<td>Space Video</td>
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<tr>
<td>Surface Tension Article</td>
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<tr>
<td>Penny Lab</td>
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PROBLEM: HOW DOES SURFACE TENSION AFFECT THE AMOUNT OF DROP A PENNY CAN HOLD?

- Write a hypothesis
  (fill in spaces on lab sheet)
  - Include the amount of drops
  - No personal pronouns
Problem: How does surface tension affect the amount of drops that a penny can hold?

Evidence: From the experiment

Fill in the Evidence Chart with 2 or more pieces of evidence from the penny lab
EXAMPLE: WATER IN SPACE

Claim: Water in space will form into a sphere shape. The water in space video of the astronaut confirms this claim. As seen, the water particles, when released from the container stuck together. This reaction formed a circular shape which remained in tact even when the surface was broken. Therefore, the claim that water will form into a sphere in space is correct.
REASONING: (5-7 SENTENCES)

- Restate the claim.
- Use **3 or more pieces of evidence** from **3 sources** (or more) to explain what surface tension is and how it works.
- Conclude with a sentence statement of how the claim is correct.