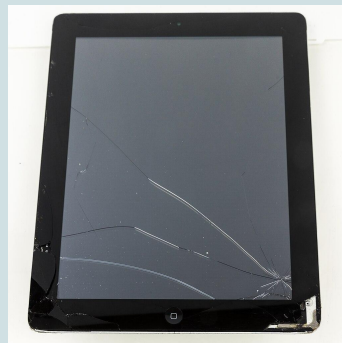
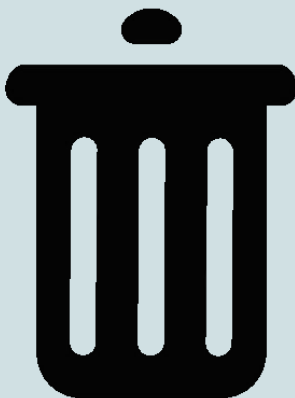


Explore The Life (and Afterlife) of Batteries



DAY 1 – Button Batteries: Chemical Harm (Bologna Test)

Learning Intention

We are investigating how different types of batteries can become dangerous when misused or disposed of improperly by observing, collecting, and organizing evidence.

I know that I'm on track if I can...

- I can observe and record evidence from battery investigations.**
- I can identify patterns in when batteries become dangerous.**
- I can collect and organize data to use later.**

One of the dangers of improper disposal: button battery

These small batteries can cause chemical burns inside the body in minutes if swallowed.

Today, we're doing a safe model experiment ~ the Bologna Test ~ to show you what happens.

Safety Reminder:

- ✓ No touching the battery with bare hands**
- ✓ No eating the bologna**
- ✓ Goggles on**

Materials

- 1 slice of bologna
- 1 plate
- 1 button battery
- Gloves
- Small squirt of saline

Let Us Begin...

Step 1: Place the bologna on your plate.

Step 2: Place the button battery in the center : positive side UP.

Step 3: Slowly drip saline around the battery until the area is moist.

Do not move the battery once it's placed.

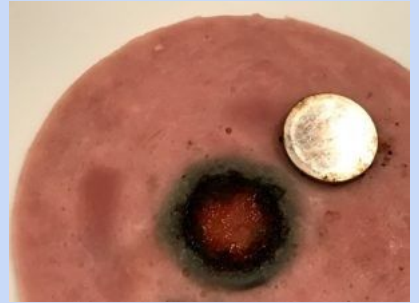
Start timer.

Observation #1 : 5-minute mark

What do we notice right now?

- Color
- Texture
- Moisture around battery
- Placement

How does this work?



- The saline acts like your body's fluids.
- The negative side of the battery creates hydroxide ions.
- These ions burn through tissue. It creates a chemical burn, NOT heat.

In children, this burn can start in minutes.

Observation #2: 10-minute mark

- Is the color changing?**
- Is there a dark ring on one side?**
- Does the texture look different?**

Do you think it would have the same reaction on the opposite battery side?

Observation #3 : 20 minute mark

- How did the bologna change from the start to now?**
- What does this tell us about real tissue?**

Experiment Disposal

- Do not touch the bologna or battery
- With your tongs, take the battery from the bologna and place it in a ziplock bag.
- With your tongs, place the bologna in the trash bag.
- Clean the table with a clorox wipe.
- Wash your hands.

I know that I'm on track if I can...

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- I can identify patterns in when batteries become dangerous.**
- I can collect and organize data to use later.**

For more information...

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