

NGSS- Classify materials based off their properties (Matter and Its Interactions 5-PS1-3). Make observations and measurements to identify materials based on their properties

- Students learn to find information from the Periodic Table
- Student explore, test, and describe different element samples
- Students record their observations and test results on their Pocket Pet (Lab sheet)

Lab Prep:

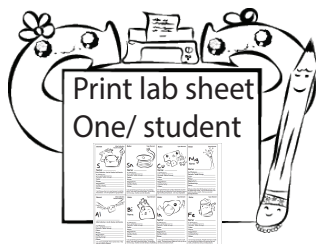


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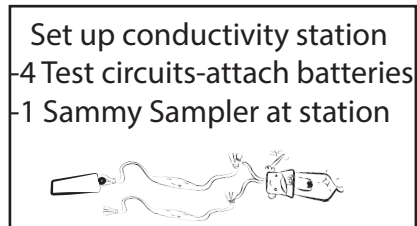
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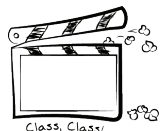
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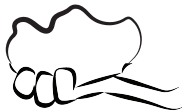
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Teacher tip: "Let students watch the In-Class Movie the day before to build understanding and excitement for the upcoming lab, then show it again on lab day." (Jill Furtado 5th grade)

Running the First Lab:



1. **Show the in-class Movie** (5 min).



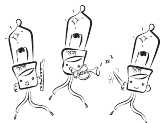
2. **Guided Practice with Sulfur** (5 min)- Let the students know you have an element sample that came from a volcano! It's abbreviation is "S." Which one is it? Sulfur changes phases from a hot gas to a solid in small vents around active volcanoes. Once your students smell sulfur they will know what a volcano smells like! Have your class fill out their pocket pet card for sulfur as they follow you in this guided practice. Demonstrate how they will test conductivity and magnetism.



3. Class practice with Aluminum samples (5 min)- Pass out element sample vials labeled "Al". Work through Aluminum with the class and make sure they know how to reference the periodic table to find the information they need to fill out their Pocket Pet Card. Demonstrate the conductivity and magnetism test for Aluminum in front of class with a student helper.



4. "Now you get to be a scientist!" (40 min) – Pass out a Sammy Sampler containing 6 elements samples to each table group or group of six students. Tell them Sammy has brought them some special elements to test and analyze. Sammy is excited to share his collection of elements with all the scientist in the room. With 36 sample vials, each student will have an element in their hands and can trade when they are done. Students usually analyze of 3 to 4 samples in 40 minutes.



5. Call up separate table groups to go to the conductivity station. Students who have completed all steps can go test at the magnetism area.

Running the Second Lab:



Don't rush the students to finish all the samples at once, students usually get through about 3 samples in 30 minutes. Students love when they get to keep working on the lab again the next day or week. Pull out the lab one more time to finish it up. Check out the microscopes for the second lab and look at all the elements.

6. Color-cut your element cards to put in your Finder Keeper
 7. Journal about your experience and what you learned.

