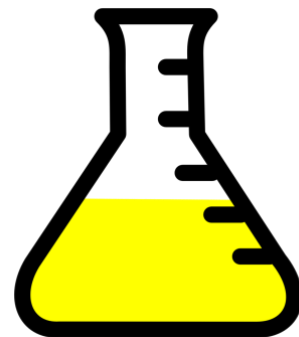


Age: 7+

# C is for... Chemistry



**What is chemistry?** Chemistry is a science that studies the composition and properties of substances and the changes they undergo

**Activity:** Cleaning Pennies Experiment

## Materials needed:

- 6 pennies (**must be a copper coin**)
- $\frac{1}{4}$  cup of coke, vinegar & salt, apple juice, water, ketchup, and vinegar
- Tweezers



## Instructions:

- Prepare and label each cup with the substance
- Put one coin in each cup and let sit for 10 minutes
- Use the tweezers to retrieve each coin and place them in front of the cup they came out of
- Wipe the coins dry and see which one is the cleanest? Shiniest?

## Questions to think about while waiting the 10 minutes:

- What substance do you think will change the appearance of the coin the most? Why?
- What substance will clean the coin the most?
- Do you think any of these substances won't change the appearance of the coin? Why or why not?

- After completing the experiment, revisit these questions and check your answers
- Why did the coin have to be copper based?

**Job Exploration:**

- **Chemist:** Chemists study substances at the atomic and molecular levels. They analyze the ways in which the substances interact with one another. They use their knowledge to develop new and improved products and to test the quality of manufactured goods.
- **Chemical Engineer:** Chemical engineers apply the principles of chemistry, biology, physics, and math to solve problems that involve the production or use of chemicals, fuel, drugs, food, and many other products. They design processes and equipment for large-scale manufacturing, plan and test production methods and byproducts treatment, and direct facility operations.
- **Biochemists:** They study the chemical and physical principles of living things and the biological processes, which include things like cell development, growth, and disease.

For more info on this lesson plan and activity visit:

<https://www.gallykids.com/cleaning-coins-experiment>