

**Main Ideas, Key Points,
Questions:**

After watching the video segment, write down key points, main ideas and big questions.

Objective(s):

- *To analyze data from their density experiment and construct an explanation which confirms the identity of the substances being measured.*
- *To carry out an investigation to identify unknown substances using the physical properties of matter.*

Notes:

During the video segment, use words, phrases or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You can ask yourself: "If I was going to explain this to someone else, what would I say?"

After watching the video and performing any associated labs and/or experiments, you should be able to answer the following:

In this segment, students have completed the lab on Measuring the Density of pre-1982 pennies and post-1982 pennies.

1. From your data, what did you measure as the average density of pre-1982 pennies?
2. From your data, what did you measure as the average density of post-1982 pennies?
3. Comparing your data to the known data of metals, what metal has a density closet to the average density of pre-1982 pennies?
4. Comparing your data to the known data of metals, what metal has a density closet to the average density of post-1982 pennies?
5. Looking at history, what event occurred in 1982 that caused these two groups of pennies to have different densities?

In this segment, you also perform identification testing using the physical property of crushability.

6. Why do scientists say that trying to identify unknowns is a good example of the crosscutting concept known as “Patterns”?