

Student's Learning Activities (Dalton and the atoms)

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Activity 3
Based on the Dalton's law, please prove that, this law is also valid when the elements Copper (Cu) and Oxygen (O) react and form two different compounds, Oxide and Sub Oxide of Copper (atomic weight of copper: 63.5, atomic weight of oxygen: 16).
Activity 4 In the diagram in the following website, please find combinations of compounds in which the law of the multiple proportions is valid.
(http://www2.honolulu.hawaii.edu/instruct/natsci/science/brill/sci122/Programs/p25/p25.html #3. John Dalton).
Activity 5



orytelling ਲੈ aching ਵ	Please write a paragraph (500 words) to explain the differences between the atomic theories of Democritus and Dalton.
	Activity 6 How do you explain the delay of 60 years after Dalton's era for the scientific community to accept his atomic theory?

Activity 7

Using the list of ideas that describe the characteristics of science and the ways it develops, try to locate and write these ideas in the story you heard and the activities of this lesson. These ideas that scientists call Nature of Science (Nature Of Science-NOS-) are:

Characteristics of Nature of Science (NOS)

- 1. Science demands and relies on empirical evidence.
- **2.** Knowledge production in science includes many common features and shared habits of mind.
- **3.** Scientific knowledge is tentative but durable.
- **4.** Laws and theories are related but distinct kinds of scientific knowledge.
- **5.** Science is a highly creative endeavor.
- **6.** Science has a subjective element.
- **7.** There are historical, cultural, and social influences on science.





- **8.** Science and technology impact each other, but they are not the same.
- 9. Science and its methods cannot answer all questions.

Because it is difficult to define science, scientists give a list of its characteristics.

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