

Matter – The Basics

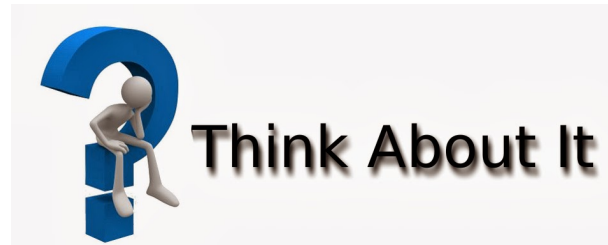
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Sycamore Canyon School

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What is Matter?

- **Definition:** Matter is anything that has mass and takes up space.



- With your table partners, please produce some examples in our classroom that fit the description of matter – be ready to share!

Types of Matter

1. Elements
2. Compound
3. Mixture

1) Elements

A pure substance that can not be further broken down to simpler substances is an element.

- Look at the periodic table of elements on our wall. Every little box represents an element.
- Elements are made of atoms... We will visit atoms in detail later 😊

What are some of the elements you're familiar with? (please flip to the periodic table in the back of your book)

2) Compound

Compound:

- A pure substance made of two or more different atoms chemically bonded to one another in a set ratio.
 - This means, for example, there are always a certain number of atom 1, to a certain number of atom 2, and so forth....
- Compounds can not be separated into its constituents by mechanical or physical means and only can be destroyed by chemical means.

Example of a compound



Calcium (Ca)

+



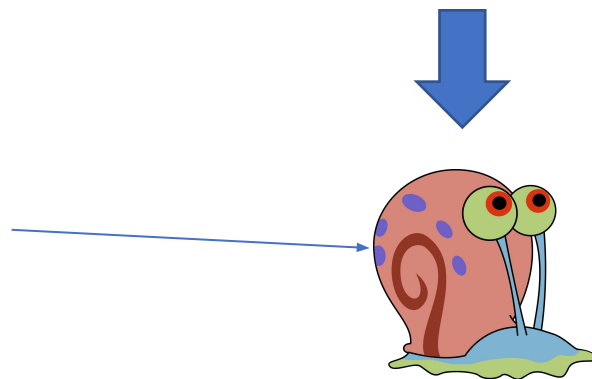
Carbon (C)

+



Oxygen (O₂)

SpongeBob's snail's shell is made up of Calcium Carbonate (CaCO₃)



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If you're wondering where the extra Oxygen in CaCO₃ came from...don't worry...we will learn how elements combine in reactions!

3) Mixtures

A material containing two or more elements or compounds that are in close contact and are mixed in any proportion, is a mixture.

Examples: Air, sea water, crude oil, etc.

- The constituents of a mixture can be separated by physical means like filtration, evaporation, sublimation (phase transfer from solid to gas) and magnetic separation.
- The constituents of a mixture retain their original set of properties.