

Lesson - SPS02B

Compounds

Use the

Get Ready to Learn!

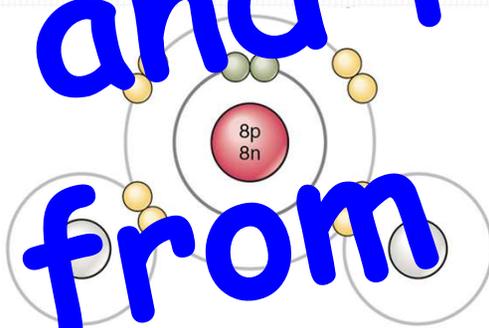
included  
slides



Google  
PowerPoints  
and  
from the  
video.

Why is this important?

- ❑ Atoms make up everything
- ❑ Atoms combine to make new materials
- ❑ We can design new materials based on how they combine

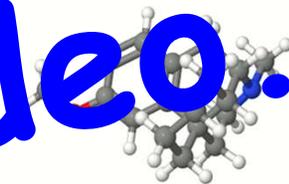


Do you know  
chemistry

The study of matter and the changes it undergoes

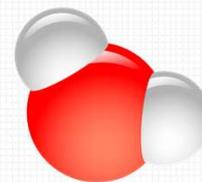
A Compound

- ❑ A compound is two or more atoms that are combined
- ❑ They combined chemically to form **something new**
- ❑ Always in the same ratio



Water Molecule

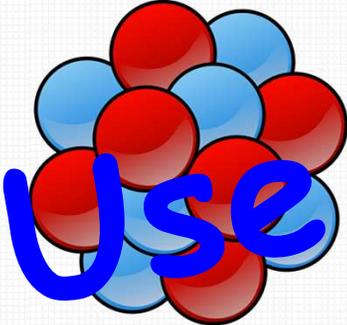
- ❑ Always two hydrogen atoms
- ❑ Always one oxygen atom



### What is important to know about compounds?

**Democritus**

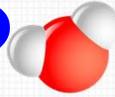
- ❑ Ancient Greek was one of first to have idea about atoms
- ❑ Called the smallest part atomos




### What is important to know about compounds?

**John Dalton**

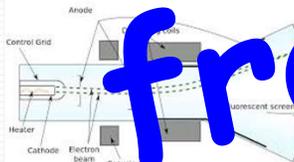
- ❑ Early 1800s
- ❑ All matter is made of tiny particles called atoms.
- ❑ Atoms are invisible
- ❑ Atoms do not break apart, neither created nor destroyed.
- ❑ Atoms of different elements differ in mass and other properties.
- ❑ In a given compound the combinations of different masses of atoms are always present in the same ratio.

### What is important to know about compounds?

**J.J. Thomson**

- ❑ Discovered the Electron
- ❑ Won Nobel Prize in 1897
- ❑ Cathode Ray tube Experiments
- ❑ Early Television picture tube

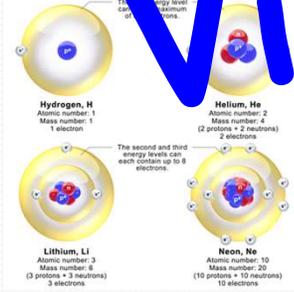




### What is important to know about compounds?

**Neils Bohr**

Designed a Bohr model of atoms that had electrons at different energy levels.

- ❑ Gave new understandings of the atomic structure

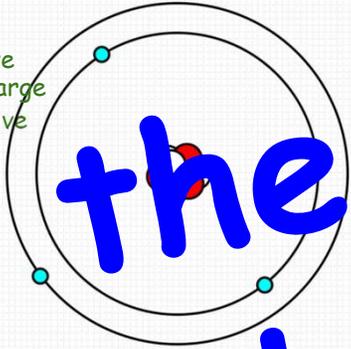



Use the included slides from the Google PowerPoint and PowerPoints from the Video.

**What is important to know about compounds?**

**Some atomic parts have an electrical charge**

- Protons → Positive
- Neutrons → No Charge
- Electrons → Negative

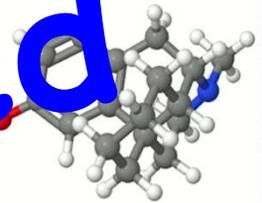


□ Atoms are balanced when their charge is equal to zero.

**What is important to know about compounds?**

**Compounds**

- A compound is two or more atoms that are chemically combined
- They combined form something new
- Always with the same ratio



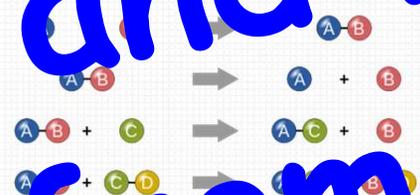
**Water molecule**

- Always two hydrogen atoms
- Always one oxygen atom

**What is important to know about compounds?**

**Chemical Reactions**

- Atoms are combined chemically
- Reactants are what you start with
- Products are the result of chemical reaction



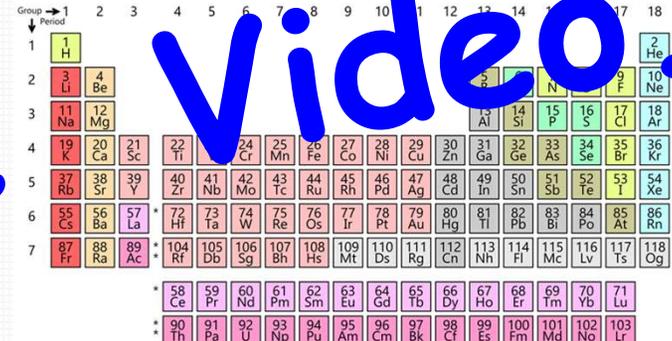
**Law of Conservation of Mass**

- No materials destroyed in a reaction
- No new material is created in a reaction

**What is important to know about compounds?**

**Periodic Table**

- Chemical symbol made up of a single letter or two letters
- First letter is always capitalized
- Names sometimes are from Latin and Greek words.



Use the included Google Slides and PowerPoint from the video.

What is important to know about compounds?

Forces in an atom

- ❑ In nucleus, all charges are either positive or neutral
- ❑ Powerful nuclear force holds nucleus together
- ❑ If nuclear force is overcome, a nuclear reaction happens.

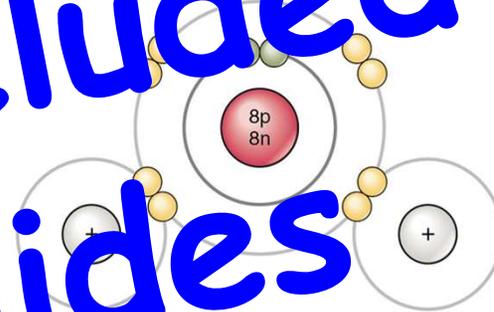


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Why is this important?

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Compounds

from the

Video.

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