

Chemical Properties and Changes

Chemical Properties and Changes

Chemical Properties:
describe a change in structure.



Chemical Properties and Changes

What are some examples
of **Chemical Properties**?

- Flammability (Does it burn?)
- Oxidation (Does oxygen change it?)
- Toxicity (Is it poisonous?)
- Radioactivity
- Sensitivity to Light
- Reactivity with water

Chemical Properties

• Flammability:

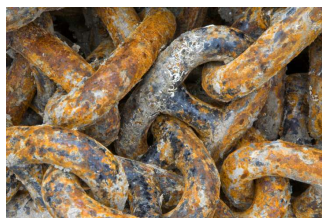
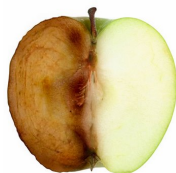
The ability to catch fire!



Chemical Properties

- Oxidation

The ability to react with oxygen



Chemical Properties

- Toxicity

The ability to be poisonous



Chemical Properties

- Sensitivity to Light

The ability to change when exposed to light



Chemical Properties

- Reactivity with Water

Elements can react explosively with water: sodium, potassium, lithium, calcium

Chemical Properties and Changes

- Chemical Properties lead the way to **chemical changes**.
- These changes make NEW structures.



C_3H_8

When propane is burned these new substances are formed:

property of **flammability**.



Chemical Properties and Changes

- And you can think of chemical changes like rearranging the letters of the words...

Basketball
Let Blab Ask
Lab Bat Elks
Ask Bell Tab
Stab Elk Lab
Bask At Bell

Chemical Properties and Changes

The letters are the same, but we've rearranged the **structure** and made new words.

This is what happens in a **chemical change**.

Properties and Changes

Let's Summarize:

- All matter has **physical properties and chemical properties**.
- Physical properties can change, but the structure of the matter **does NOT change**
- Chemical properties **lead the way** to chemical changes.
- Chemical changes **make new substances**.