

let's talk 
science
partnership program

Physical and Chemical Changes

http://www.bbc.co.uk/bitesize/ks2/science/materials/reversible_irreversible_changes/play/

Agenda

- Introduction
- Physical Changes
- Chemical Changes
- Experiments
- Movement Demonstration
- Examples
- Slime
- Conclusion

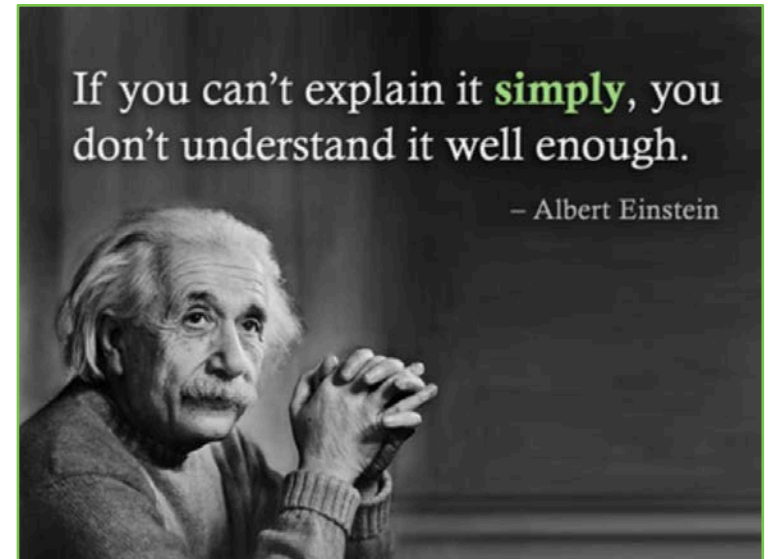
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Introduction

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- What do scientists do?
- Where are they?
- What types of scientists are we?
- How does this type of science affect you?



Physical Changes

- What is it?
- States of matter
- Can it be reversed?
- Examples



Chemical Changes

- What is it?
- Can it be reversed?
- Examples



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Experiment Time!

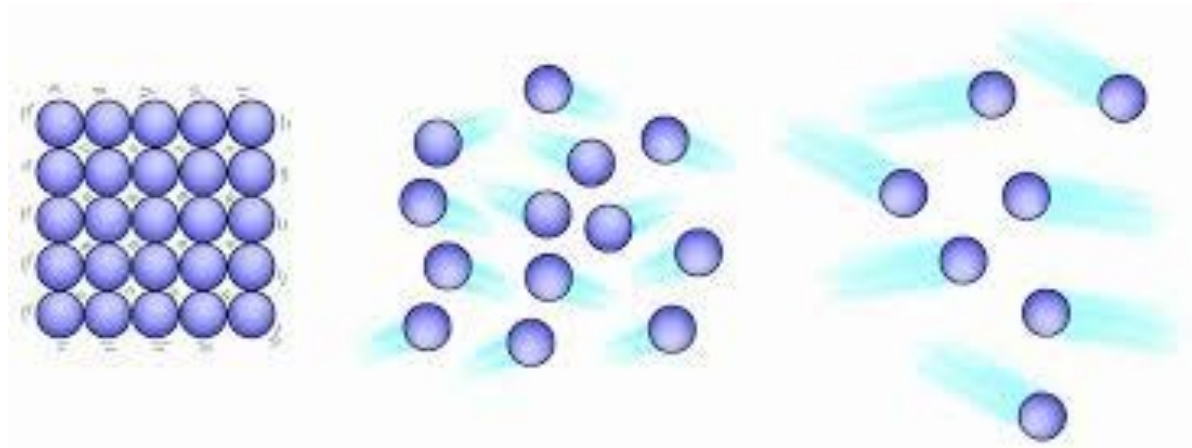
- Are the following examples of chemical or physical changes?
 - Snow melting
 - Baking soda and vinegar
- How do you know?



Get Moving!

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- Student Volunteers
- States of matter
 - Solids
 - Liquids
 - Gases



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Real World Examples

- Metal screws: Chemical or Physical Change?
- Rubber Tires: Chemical or Physical Change?
 - Melting: Are tires sticky?
 - Added sulfur
 - Cross-linking activity
 - “vulcanization”



Creating Slime

- Food Dye allergies?
- Creating your own chemical change
- Start with a liquid
- Add another substance that ties the molecules together
- End up with a more solid material
- Work with a partner

Creating Slime

- Solution A (partner 1)
 - Warm Water
 - Elmer's White Glue
- Solution B (partner 2)
 - Borax
 - Warm Water
 - Mix until dissolved
- Mix Solution A and Solution B together to make slime!
- Roll it into a ball



Creating Slime

- What does it feel like?
- Which state of matter have you created?
- Can you reverse the change?



Conclusion – Physical and Chemical Changes

- What is a physical change?
- What is a chemical change?
- Examples of each
- Which kind of change did you create? How do you know?
- Careers that relate to science



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Thanks for having us!