Physical and Chemical Properties

- What is the difference between a physical and chemical property?
- Discover examples of physical properties.
- Identify examples of chemical properties.

Remember...

Remember...

Matter is anything that has mass and volume.

Let's look at some matter... a lemon. Describe it using adjectives.

Let's look at some matter... a lemon. Describe it using adjectives.

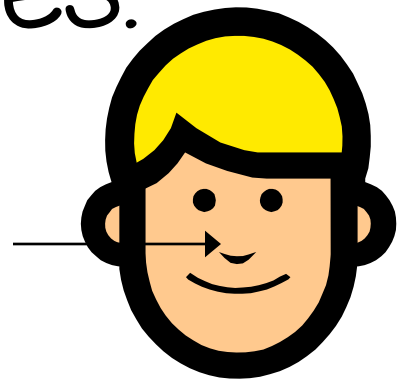
Yellow, sour, smooth...

What did you use to make these observations?

Physical properties are the things we know about objects using our 5 senses.

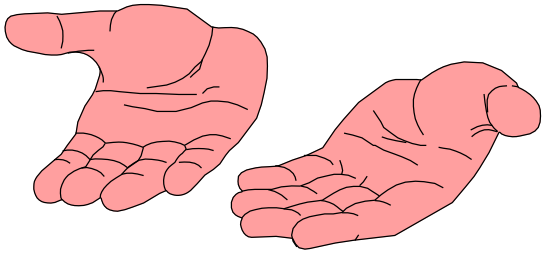
sight

taste



smell

hearing



touch

A *physical property* of matter can be observed or measured without changing the identity of the matter.

Physical Properties of Matter

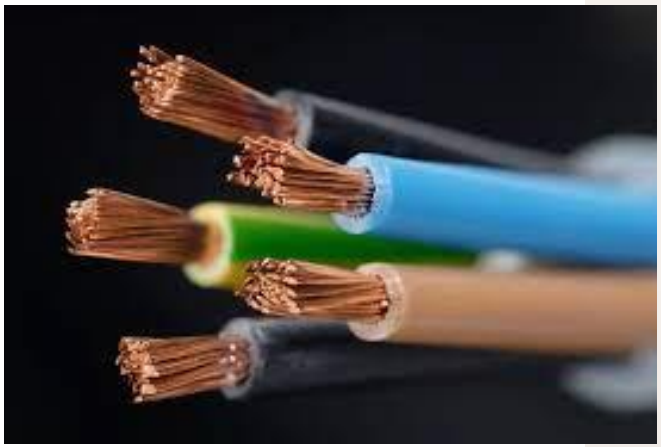
Physical Property	Definition	Example

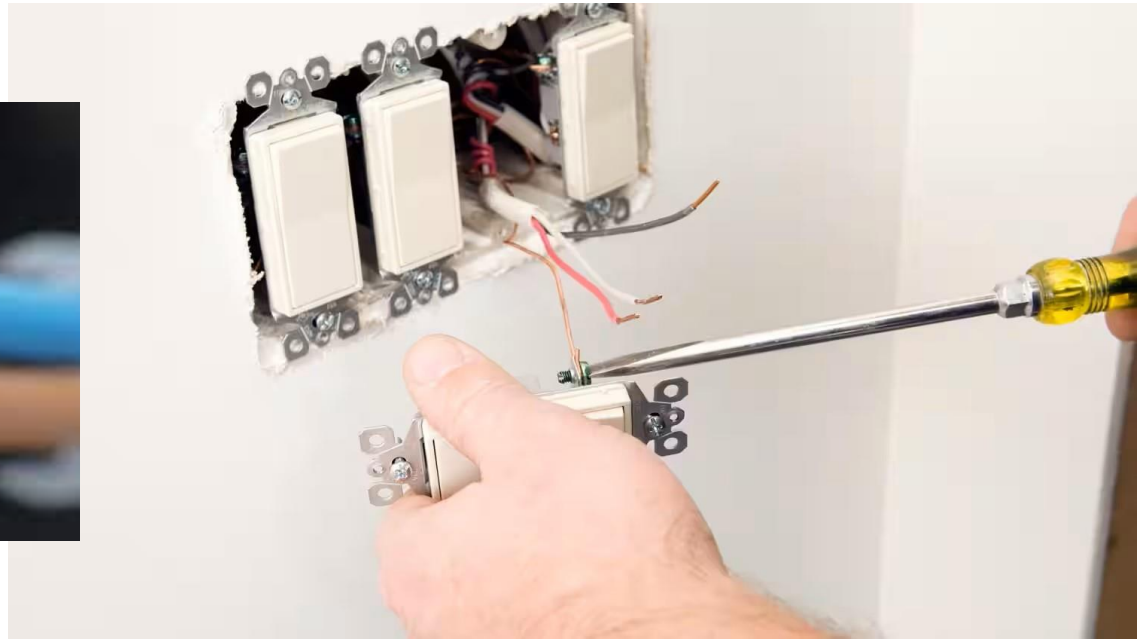
Get your Table Ready!
Let's Identify, define, and give examples for each of the 8 physical properties! Fill in your table as we go along!

Physical Property

Electrical Conductivity

Electrical Conductivity is the ability to carry electricity.





Copper is a good conductor, so it is used in electrical wiring.

Physical Properties of Matter

Physical Property	Definition	Example
Electrical Conductivity	Ability to carry electricity	Copper is a good conductor, so it is used in electrical wiring.

Physical Property

Thermal Conductivity

Ability to transfer thermal energy from one area to another

Foam is a poor conductor, so hot cocoa in a foam cup will not burn your hand.

Physical Properties of Matter

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Physical Property

Density

Density is mass per unit volume.

Lead is a very dense material, so it is used to make sinkers for fishing line.

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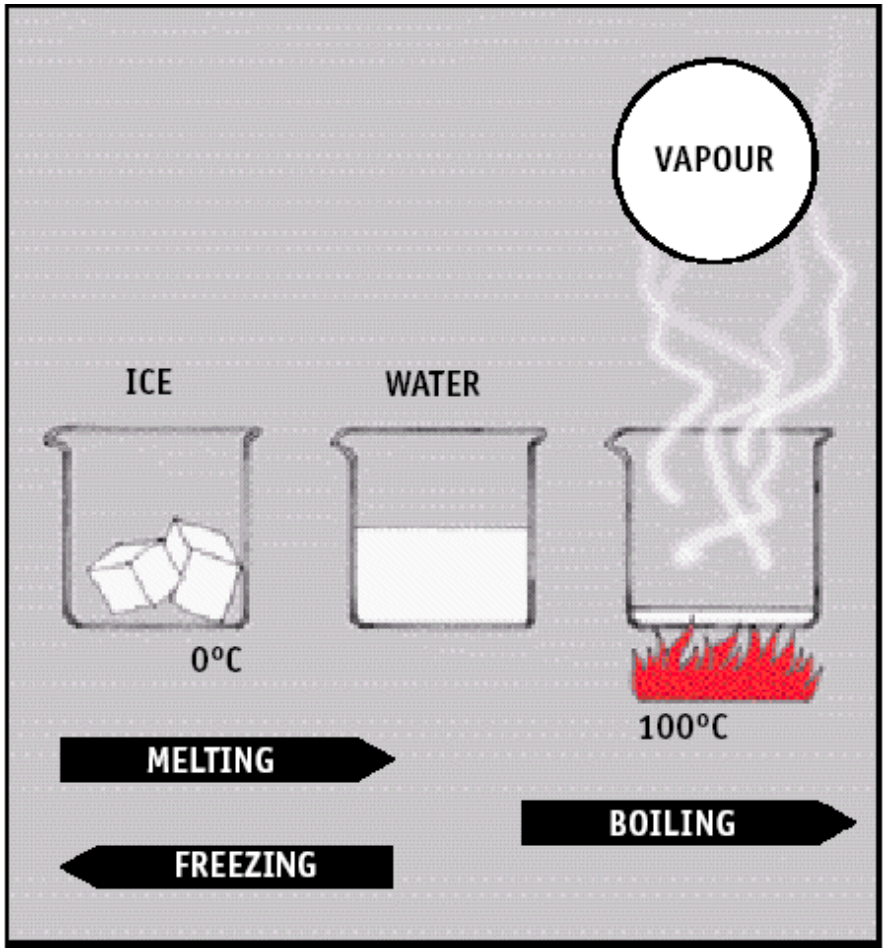
Physical Property

Melting Point

Temperature at which a solid changes to a liquid

Ice melts to liquid water at the melting point of water. (0 degrees Celsius, 32 degrees Fahrenheit)



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Physical Property

Boiling Point

Temperature at which a liquid boils and changes from a liquid to a gas

Liquid water boils and evaporates into gas at its boiling point. (212 degrees Fahrenheit or 100 degrees Celsius)

Physical Properties of Matter

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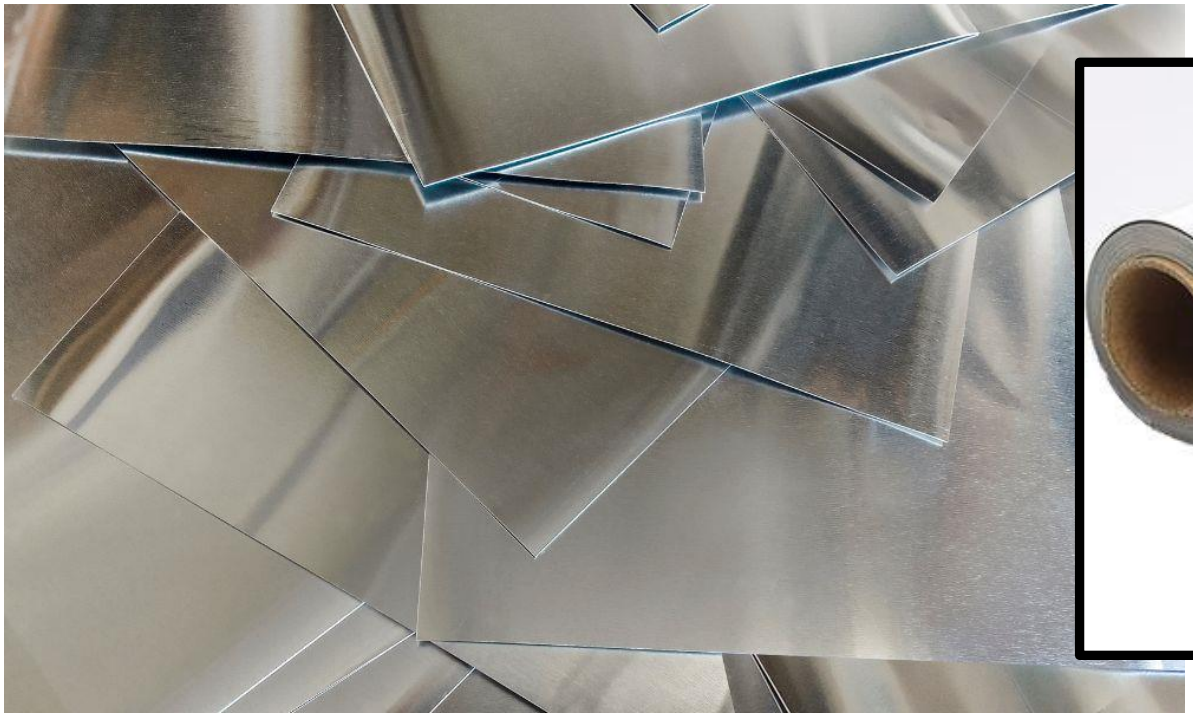
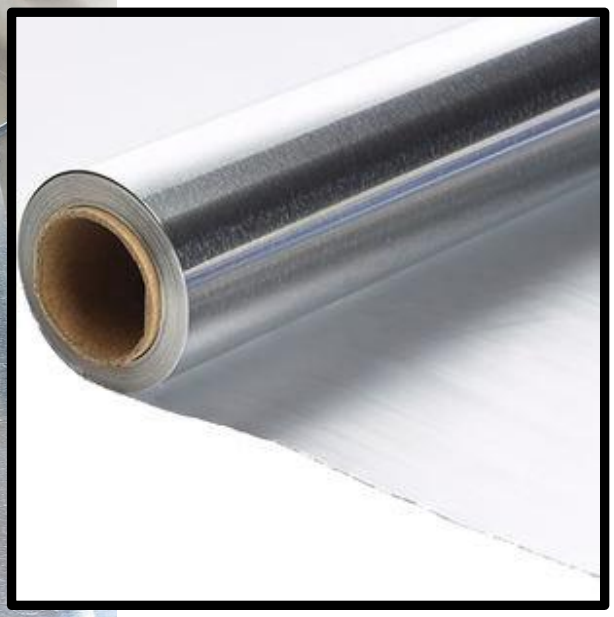
Physical Property

Malleability

Ability to be pounded into thin sheets





Aluminum can be rolled or pounded into sheets to make rolls.

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Malleability	Ability to be pounded into thin sheets	Aluminum can be rolled or pounded into sheets to make rolls.

Physical Property

Ductility

Ability to be drawn or pulled into a wire

Tantalum is a ductile material, so it is used to make fine dental tools.

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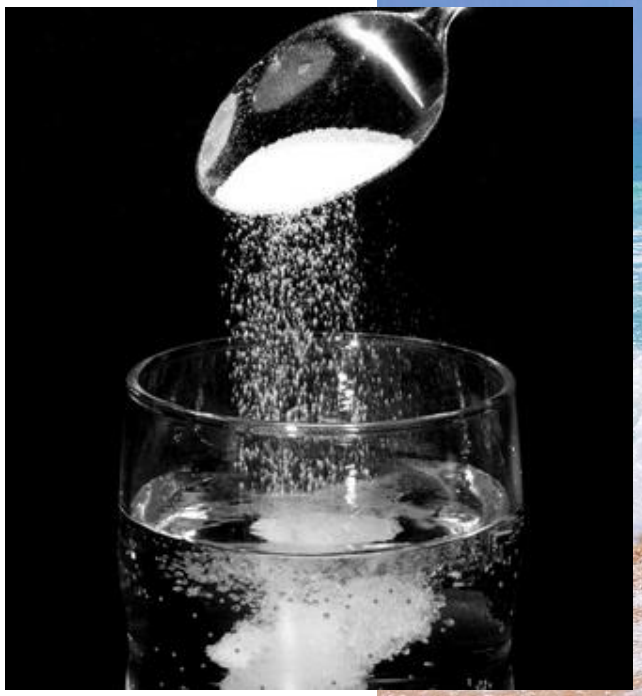
Malleability	Ability to be pounded into thin sheets	Aluminum can be rolled or pounded into sheets to make rolls.
Ductility	The ability to be drawn or pulled into a wire	Tantalum is a ductile material, so it is used to make fine dental tools.

Physical Property

Solubility

Ability to dissolve in another substance



Salt dissolves in water.

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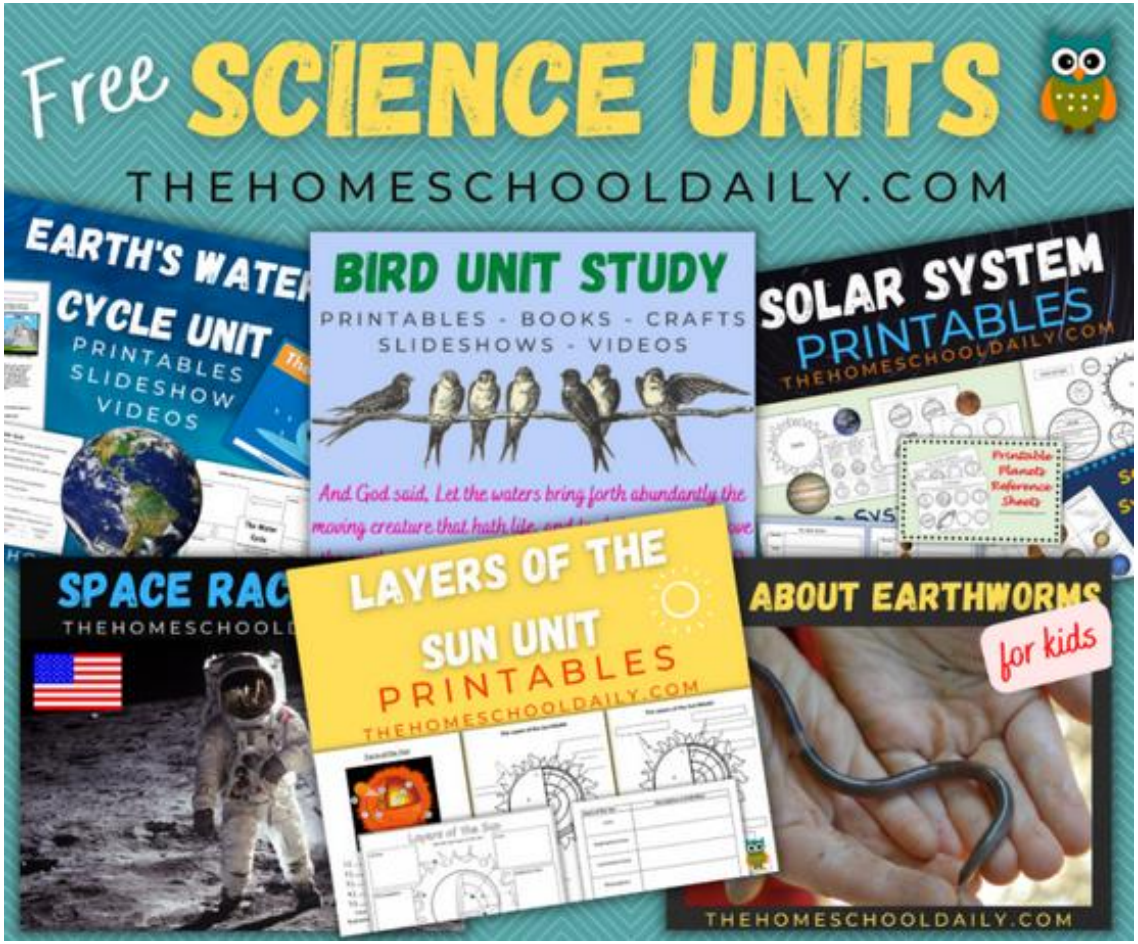
Ductility	Ability to be drawn or pulled into a wire	Tantalum is a ductile material, so it is used to make fine dental tools.
Solubility	Ability to dissolve in another substance	Salt dissolves in water.

What are some other physical properties?

- Color
- Odor
- Luster
- Hardness
- Taste

What physical properties does popcorn have?

To learn more about matter, visit our States of Matter Printable & Activities post under our Science Units & Activities.



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