

# 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.



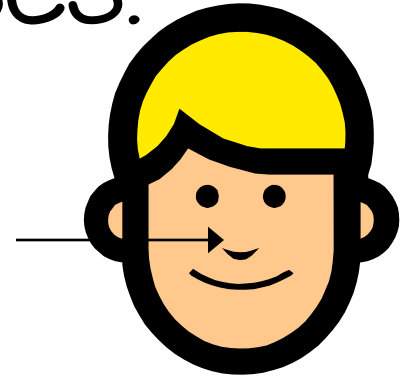
sight

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taste

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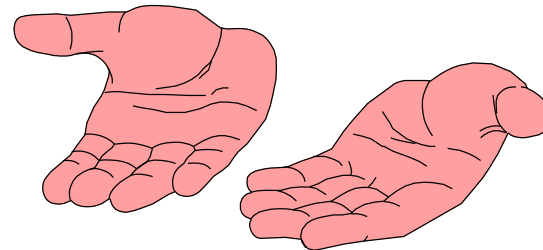
smell

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hearing

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touch

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



# Physical Properties of Matter

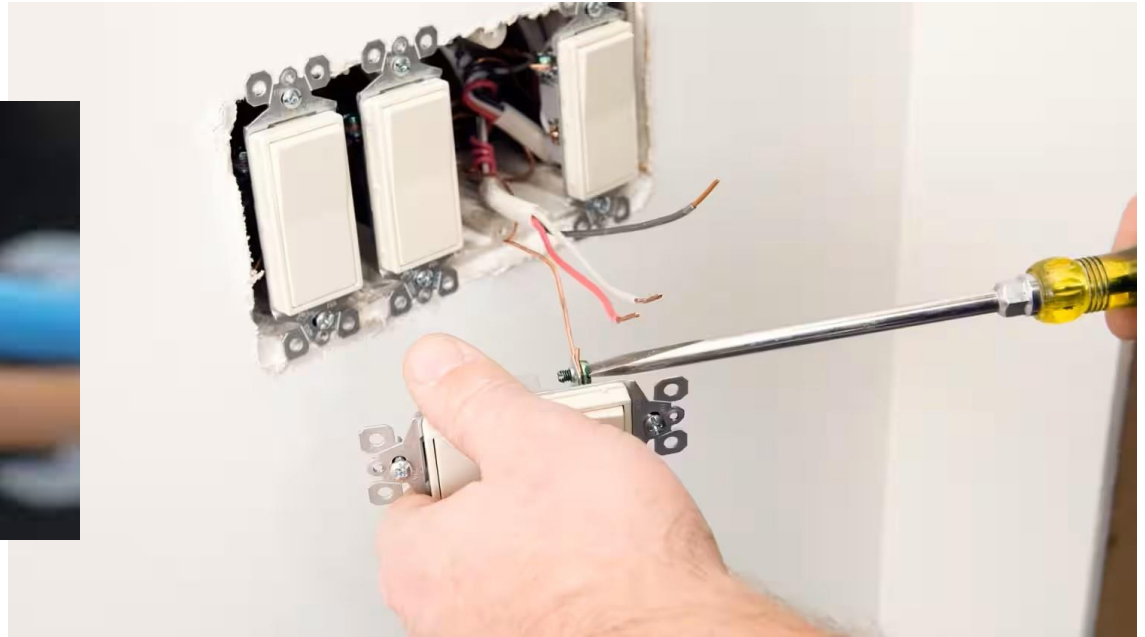
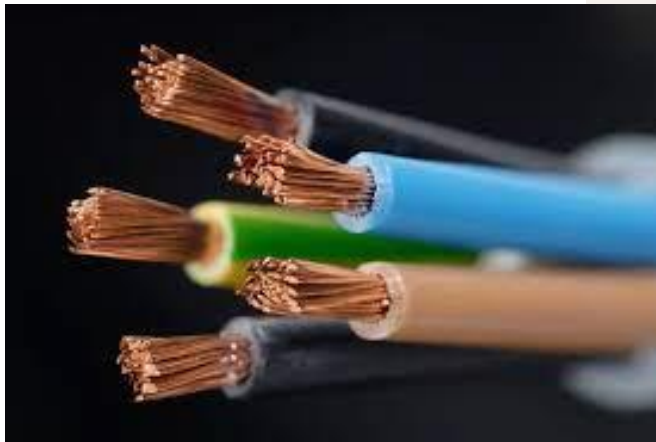
<u>Physical Property</u>	<u>Definition</u>	<u>Example</u>

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  
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  
Property

# Density

Density is mass per unit volume.



## Lead Drop



10/PCS

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

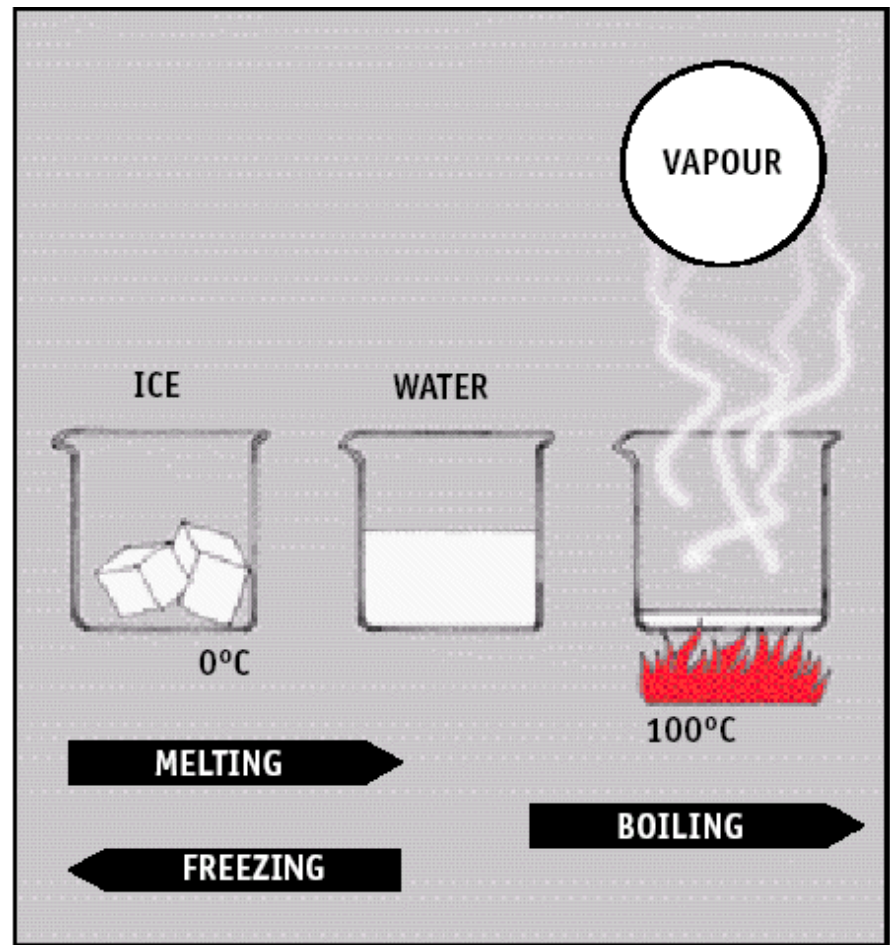


Physical  
property

# 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)



# Physical Properties of Matter

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Electrical Conductivity	Ability to carry electricity	Copper is a good conductor, so it is used in electrical wiring.
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.
Density	Mass per unit volume	Lead is a very dense material, so it is used to make sinkers for fishing line.
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)

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)



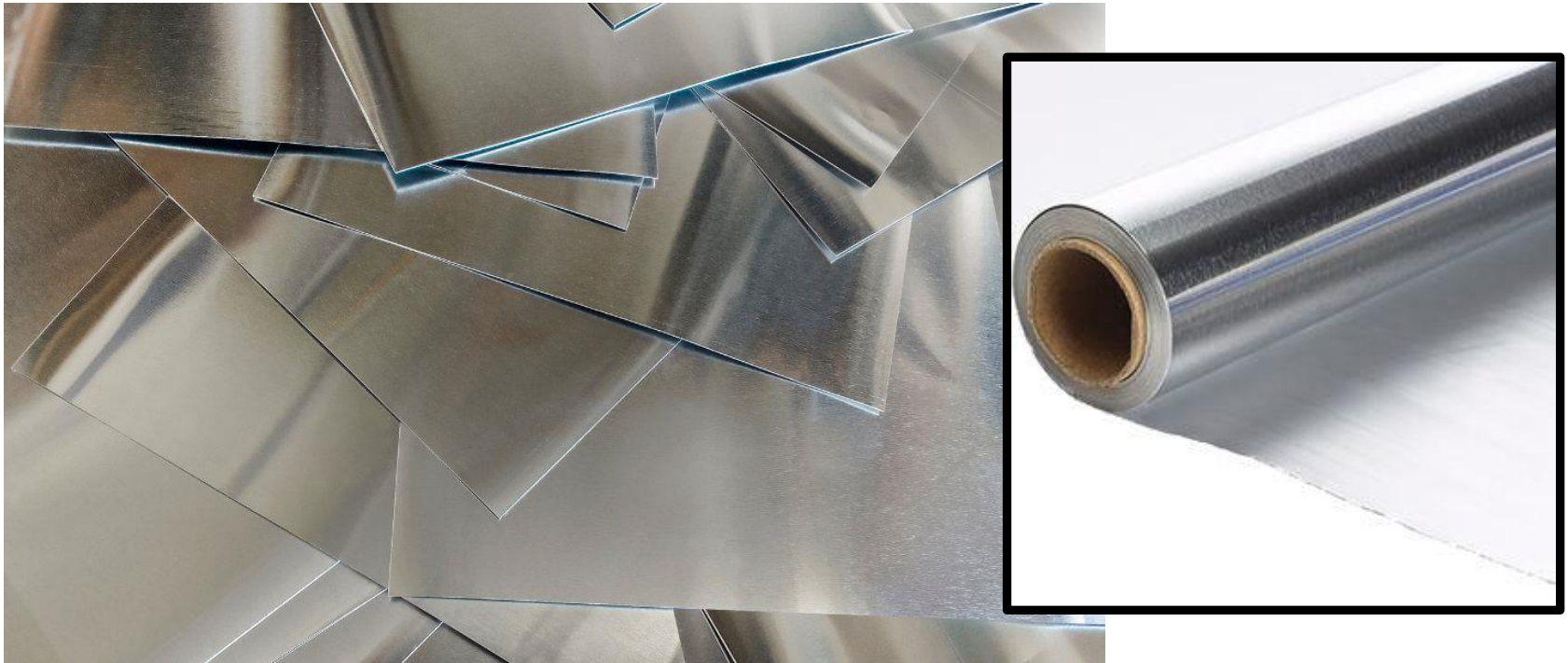
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physical  
property

# 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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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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♥ Marie

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