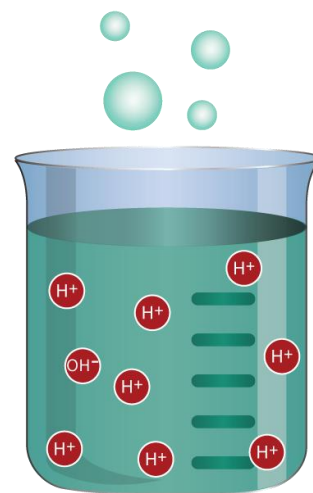


Name: _____ Period: _____ Date: _____

Properties of Acids and Bases Guided Notes – Student Edition

What are Acids?

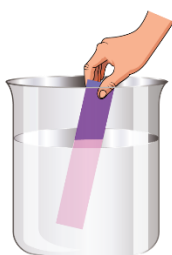
Acids are a group of chemicals that can be found widely in _____ and also in the _____. They contain at least one _____ atom in their chemical structure and will release these hydrogen atoms as hydrogen (____) ions when the acid dissolves in water.



Properties of Acids

Like many other groups of chemicals, acids have several _____ that we can use to identify them.

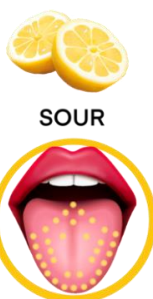
All acids:



Turn _____
litmus paper
_____.



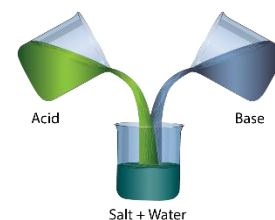
Have a pH of _____.



Taste _____



Corrosive



Cancel out
(_____) bases.

Types of Acids


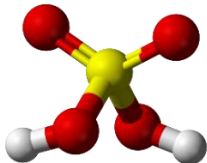
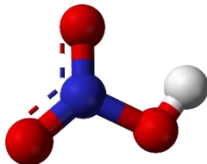
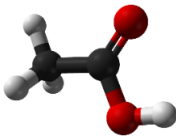
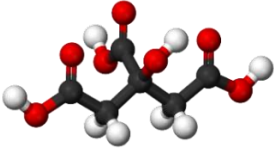
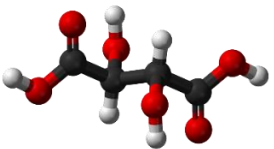
There are two main types of acids - _____ acids and _____ acids.

- Mineral acids as their name suggests are made from _____ such as chlorine, sulfur etc. They are generally much _____ than organic acids and can corrode or '_____ at substances such as metal, _____ and skin.
- Organic acids are those which contain _____. These acids are _____ acids are are not as dangerous. These can be found in many fruits and baking agents.

Name: _____ Period: _____ Date: _____

Properties of Acids and Bases Guided Notes – Student Edition

The table below summarizes the different acids that you will encounter in this unit.

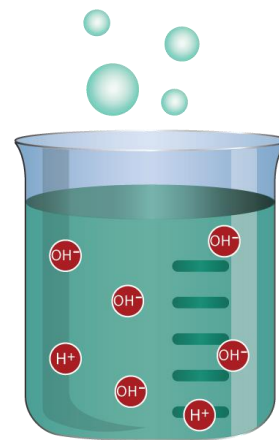
Acid	Type	Formula with ball and stick model	Found in
Hydrochloric	Mineral	_____ 	<ul style="list-style-type: none"> • Lab acid • _____
Sulfuric	_____	H ₂ SO ₄ 	<ul style="list-style-type: none"> • Lab acid • _____ • Fertilizers
Nitric	Mineral	_____ 	<ul style="list-style-type: none"> • Lab acid • Pigments and dyes • _____ • Explosives
Acetic	_____	CH ₃ COOH 	<ul style="list-style-type: none"> • _____
Citric	Organic	_____ 	<ul style="list-style-type: none"> • _____ fruits • Flavoring and preservatives in food.
Tartaric	Organic	_____ 	<ul style="list-style-type: none"> • Baking agents • _____, • _____ • Tea

Name: _____ Period: _____ Date: _____

Properties of Acids and Bases Guided Notes – Student Edition

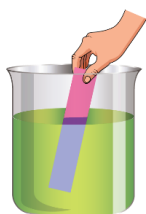
What are Bases?

Bases are the _____ to acids. They remove hydrogen ions (_____ particles from a solution) when they react with acids. Most bases do not dissolve in water. Those that are soluble are called _____ and release hydroxide (_____) ions when they are dissolved in water.



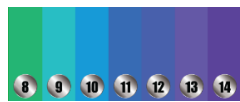
Properties of Bases

Like acids, bases have properties which allow us to identify them. All bases:



Turn

_____ litmus paper
_____.



Have a pH of

_____.



BITTER



Taste

_____.

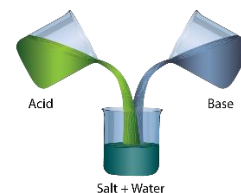


Corrosive



Feel soapy/

_____.



Cancel out

(neutralize) acids.


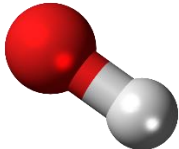
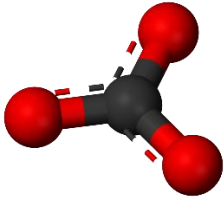
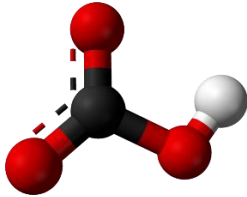
Bases are excellent at dissolving grease and oil and are often used in _____ around your home, because many stains and messes are _____ in nature. Your skin is covered in oils which are acidic, when a base like _____ is used, it dissolves those oils producing the slippery, soap effect. Bases can also be found in window cleaner, _____ tablets or powder, soaps and bodywashes, and _____.



Name: _____ Period: _____ Date: _____

Properties of Acids and Bases Guided Notes – Student Edition

Examples of the bases you may use in the school lab are found in the table below:

Type	Formula:	Examples
metal oxides	_____ 	Magnesium oxide, _____ Sodium oxide, Na ₂ O
metal hydroxides	OH ⁻ 	Sodium hydroxide, NaOH _____ _____, Ca(OH) ₂
metal carbonates	CO ₃ ²⁻ 	Copper carbonate, CuCO ₃ Calcium carbonate, _____
metal hydrogen carbonates	_____ 	Sodium hydrogen carbonate, _____