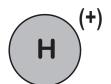


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Name	Class	Date

When placed in water, acids release hydrogen (H+) ions. When an acidic substance dissolves in water – hydrogen atoms break away from the acid molecules. This process forms hydrogen ions.



Characteristics of ACIDS:

- have a sour taste
- turn blue litmus paper red
- react with metals producing hydrogen gas
- conduct electric current

Hydrogen ions and chloride form when hydrochloric acid (HCI) is dissolved in water.

HCI water H+ CI

A base is a type of bitter substance. When placed in water, bases release hydroxide (OH-) ions into the water.



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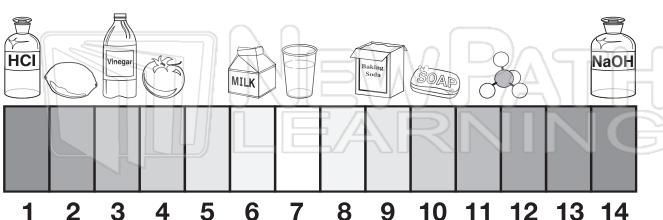
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Neutral solutions have a pri or exactly 1.





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Acids and bases vary in **strength** depending on the number of molecules that break apart to produce ions when dissolved in water. The **more hydrogen** ions (H+) formed, the stronger the **acid**. Likewise, the **more hydroxide ions** (OH-) formed the stronger the **base**.

pH indicators are substances that change color when they are added to acidic solutions or alkaline (basic) solutions. They are used to determine if a substance is acidic or basic.

Universal pH Indicator Paper:

A strong acid will turn the universal pH indicator paper red.

A strong base will turn the universal indicator paper purple.



acidic - blue litmus turns red

basic - red litmus turns blue



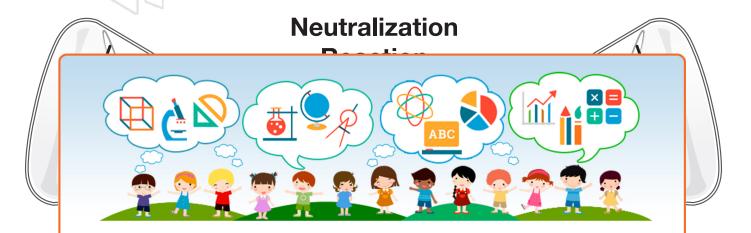
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SALTS

Acid-Base Reactions

A neutralization reaction occurs when an acid and a base react to form water and a salt. The hydrogen ions (H+) from an acid react with the hydroxide ions (OH-) from a base to form water.

HCI + NaOH → H₂O + Na[†] + CI[†]
reactants products



PREVIEW

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Nar	ne Date
	Fill in the blanks.
Wher	placed in water, acids release ions into the water.
Acids	s taste
Wher	placed in water, bases releaseions into the water
Base	s taste and feel
	indicators are chemicals that change
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Cut out and color the objects. Make a large pH scale. Use references, if needed, to help you place items along the pH scale. Find more items to add to the scale.

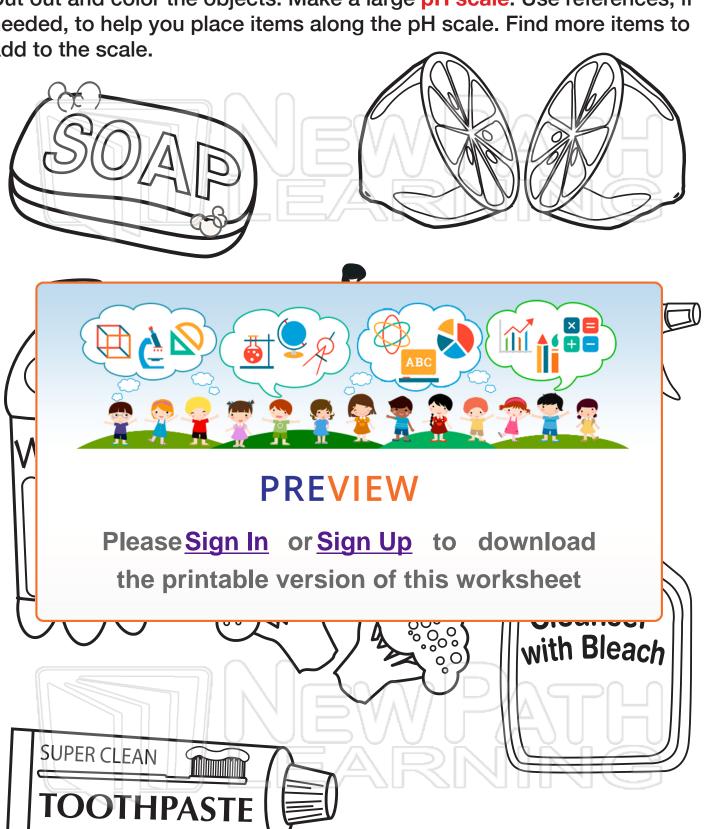




Name	Class	Date

Cut out and color the objects. Make a large pH scale. Use references, if needed, to help you place items along the pH scale. Find more items to

add to the scale.





Answer Key

Fill in the blanks.

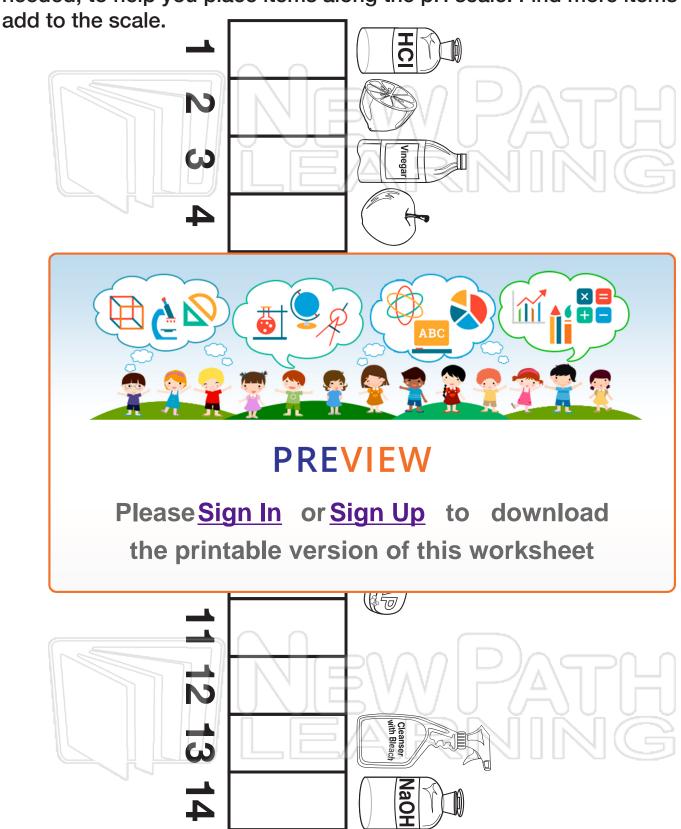
When	n placed in water, <mark>acids</mark> release	hydrogen	_ <mark>ions</mark> into the wa	ater.
Acids	s taste <u>sour</u> .		\	
Wher	n placed in water, bases release	hydroxide	ions into the w	ater.
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Answer Key - Example

Cut out and color the objects. Make a large pH scale. Use references, if needed, to help you place items along the pH scale. Find more items to



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