



MONDAY 19TH OCTOBER
2020

CHEMICAL CHANGES

GO ON! MAKE ME!!!



5 MINUTE MINI ASSESSMENT – STICK IN YOUR BOOK

What is the name of the process that turns a liquid into a solid?	How can we make a solute dissolve?	What materials are good at absorbing liquids?	What is the name of the process when a gas changes into a liquid?
What is a fair test?	What is conductivity?	What separation process would we use to separate sand and water?	What materials are flexible?
What is the best way to separate magnetic and non-magnetic materials?	What happens when a solute is dissolved?	How could we test the hardness of a material?	What is a reversible change?
Which state of matter do the particles move most?	What is evaporation and condensation?	What are the names of the 3 states of matter?	What materials could we use sieving to separate?
2 marks (last lesson)	3 marks (2 weeks ago)	4 marks (a month ago)	5 marks (Prior learning)


MINI ASSESSMENT – ANSWERS

<p>What is the name of the process that turns a liquid into a solid?</p> <p>Freezing</p>	<p>How can we make a solute dissolve?</p> <p>Heating the mixture</p> <p>Stirring the mixture</p>	<p>What materials are good at absorbing liquids?</p> <p>materials – fabrics, cotton, wash cloths, towels, sponges, paper towels, kitchen roll etc.</p>	<p>What is the name of the process when a liquid changes into a gas?</p> <p>Evaporation</p>
<p>What is a fair test?</p> <p>We keep the independent variables the same</p>	<p>What is conductivity?</p> <p>Materials that allow electricity/heat to pass through it</p>	<p>What separation process would we use to separate sand and water?</p> <p>Filtration</p>	<p>What materials are flexible?</p> <p>Some plastic,</p>
<p>What is the best way to separate magnetic and non-magnetic materials?</p> <p>By using a magnet</p>	<p>What happens to the molecules when a solute is dissolved?</p> <p>The molecules of the solute go into the gaps between the molecules of the solvent</p>	<p>How could we test the hardness of a material?</p> <p>We could scratch it with an iron nail</p>	<p>What is a reversible change?</p> <p>A change that can be undone – melted chocolate can be cooled to make it return back to being a solid.</p>
<p>Which state of matter do the particles move most?</p> <p>Gas</p>	<p>What is evaporation and condensation?</p> <p>Evaporation – a liquid changing to a gas</p> <p>Condensation – a gas changing into a liquid</p>	<p>What are the names of the 3 states of matter?</p> <p>Solid, liquid and gas</p>	<p>What materials could we use sieving to separate?</p> <p>Raisins and flour</p> <p>Rice and pasta</p>



LO: to understand that some changes are irreversible.

Steps to success

- I know that a material needs energy to change
 - I know that if we take a chemical away from one material and add it to another, it makes a new material
 - I can conduct a small investigation
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We have looked at physical changes, which are reversible.



Which physical changes can you remember?

Physical changes are when the material may change form, but stays the same material, so can be changed back to its other form.

This often involves adding or removing energy.



What happens when you heat up an egg?



What happens when you heat sweet potatoes?



What changes have you noticed? Can they be reversed?

Answer

The changes that have taken place are IRREVERSIBLE.

Irreversible changes are those **changes which are permanent changes and cannot be brought back into its original form.**

TASK

You are going to test some chemicals, in your group.

You have one liquid and one powder.

The liquid is an acid (vinegar) and the powder is an alkali called bicarbonate of soda.

You are going to put small amounts of powder into the liquid and observe what happens.

When the reaction ends, add some more powder. Keep repeating this until the reaction stops happening.



Instructions for remote learning

Click to watch a video- if you do not have the resources at home.

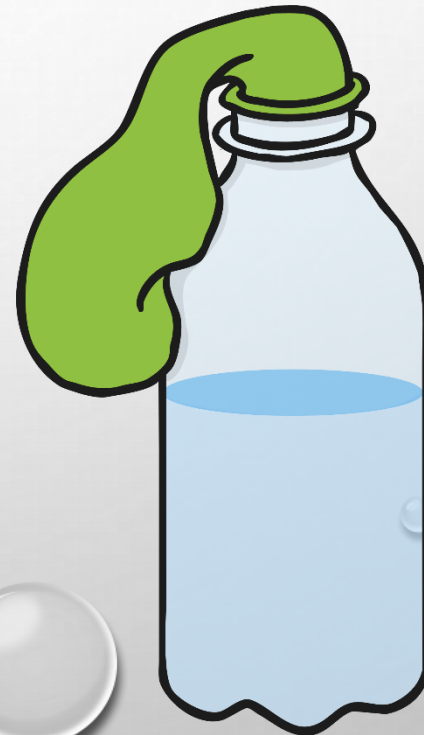
<https://watchkin.com/76341fd329>

1. Wear safety glasses.
2. Place 50g of bicarbonate of soda in a balloon (use a cardboard cone).
3. Place 50ml of vinegar in a bottle.
4. Carefully stretch the neck of the balloon over the bottle without letting any of the bicarbonate of soda spill into the bottle.
5. Lift up the balloon to tip the powder into the vinegar.
6. Repeat with double the bicarbonate of soda and vinegar.

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Review

Do we think that we could remove the bicarbonate from the vinegar and repeat the experiment?

What tells us that we have lost parts of each chemical?

What gas do you think was made? Why do you think this?

Can you think of any other examples of a similar reaction?



sherbet & saliva

baking powder