Primary science investigations
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Bath bombs

why & how? PRIMARY SCIENCE TEACHING TRUST

ROYAL SOCIETY OF CHEMISTRY

Bath bombs

We will be:

Investigating the science behind bath bombs.

Learning objectives

Understanding

- I can describe how some materials produce new materials when they are mixed.
- I know that this is an irreversible chemical reaction.

Enquiry skills

- I can make careful measurements and observations.
- I can record data and results.
- I can make predictions.

Useful vocabulary

- **Reversible change:** a change where no new materials are created and the original material can be recovered. For example: melting, evaporating, freezing, dissolving and mixing.

- **Irreversible change:** a chemical change or reaction where new materials are formed.

Useful vocabulary

- **Gas:** a ‘state of matter’ where particles have high energy and large spaces between them. A gas takes the shape of the container it is in and will flow.

- **Carbon dioxide:** a type of material usually found as a gas.

Useful vocabulary

- **Variable:** something that is observed or measured which could change during a science experiment, eg temperature, amount of substance.

- **Acids and alkalis:** chemicals with specific properties that may be thought of as ‘chemical opposites’ and that react together to form new substances.

Method

Working in pairs:

1. Mix the two solids together in a container. What do you notice?
2. Now add water, one drop at a time. Record how many drops of water you can add until nothing else happens.
3. Write/describe what you observe in a table.

Investigate the reaction further

- You are going to investigate the factors that affect the reaction.
- You need to decide, as a group, what you are going to change and what you are going to keep the same.

1. Write down your plan and check that you have all agreed on what you will be measuring.
2. Collect the equipment and carry out the investigation.
3. Record your measurements.

What did you find out?

- What happened when you added water to a dry mixture of acid and alkali?
- What affected the rate at which this took place?
- Can you get the original substances back?
- Where have they gone?

Follow up

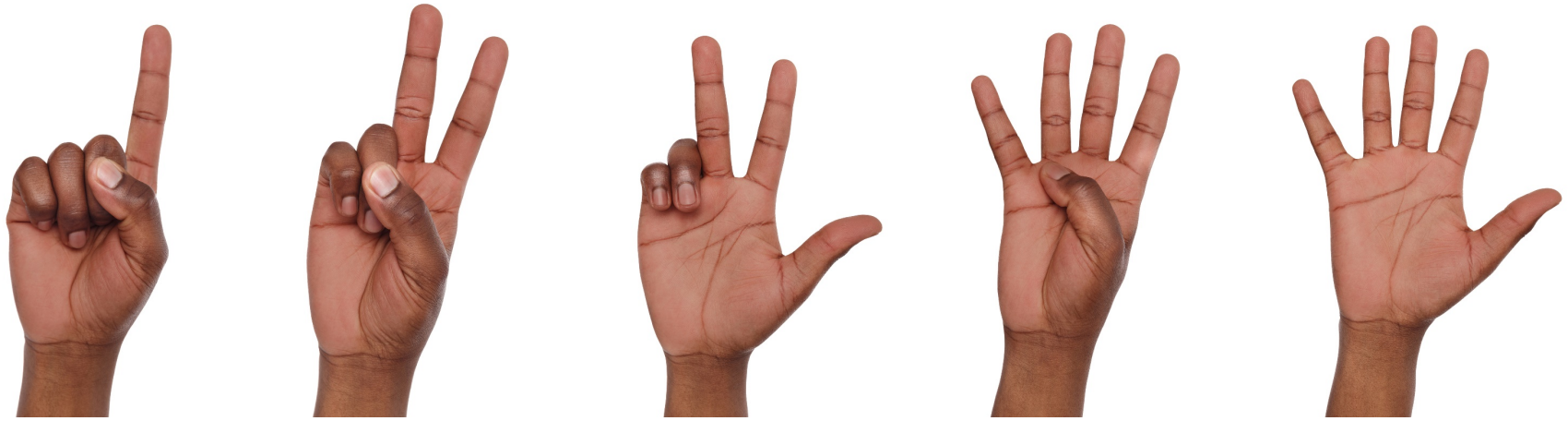
- How can you make a ‘bath bomb’ using these substances?
- What else might you want to add to this to make the bath bomb look/smell better?

Evaluation

How do you feel about our **learning objectives** today?

- I can describe how some materials produce new materials when they are mixed together.
- I know that this is an irreversible chemical reaction.
- I can make careful measurements and observations.
- I can record data and results.
- I can make predictions.

If you feel confident, show your teacher 5 fingers, or show 1 if you feel that you need to chat through the lesson again.



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