BRITISH SCIENCE WEEK

Millgate House Education

Innovating for the future

Flitter jars

About this activity

This activity mimics the snow or flitter domes, popular since Victorian times, which contain objects in a swirling snowstorm. This highly engaging activity encourages children to talk about light, shadows and materials. It can lead naturally into children spinning and twirling about like the pieces of flitter in the jars.

Time

30 minutes

Kit list

- Transparent containers with lids
- The flitter: tiny pieces of foil, coloured glitter (ideally bio-glitter), table confetti, water beads
- Food colouring
- Torch
- White paper to act as mini screens

Next steps

Encourage children to draw what they observed while playing with their flitter jars. You can add comments to annotate the drawing for them. You could try using different types and shapes of transparent container and comparing them.

Watch out!

- Smooth-sided glass jars produce better shadows in this activity, but they present a hazard if breakages occur. In case of breakages, clear up immediately with a brush and dustpan and dispose of properly.

Instructions

1. Let children choose a jar and fill it with water. Pop the lid on until they have decided what flitter to add.
2. Give children time to explore the shiny glittery bits to add to the jar. Encourage them to observe as the glitter is added. Small amounts of flitter produce much clearer results than shovelfuls of shiny pieces!
3. Let them try the jars with clear water first. Add a few drops of food colour to enliven the concoction. Screw the lid on tightly.
4. Give time to enjoy tipping the jar back and forth repeatedly to watch the movement of the flitter. Compare the movements caused by a big shake, a little shake, and just tipping the jar.
5. Shine a torch through the moving liquid and allow the shadows and colours to fall onto a piece of white paper behind the jar.

Think and talk about

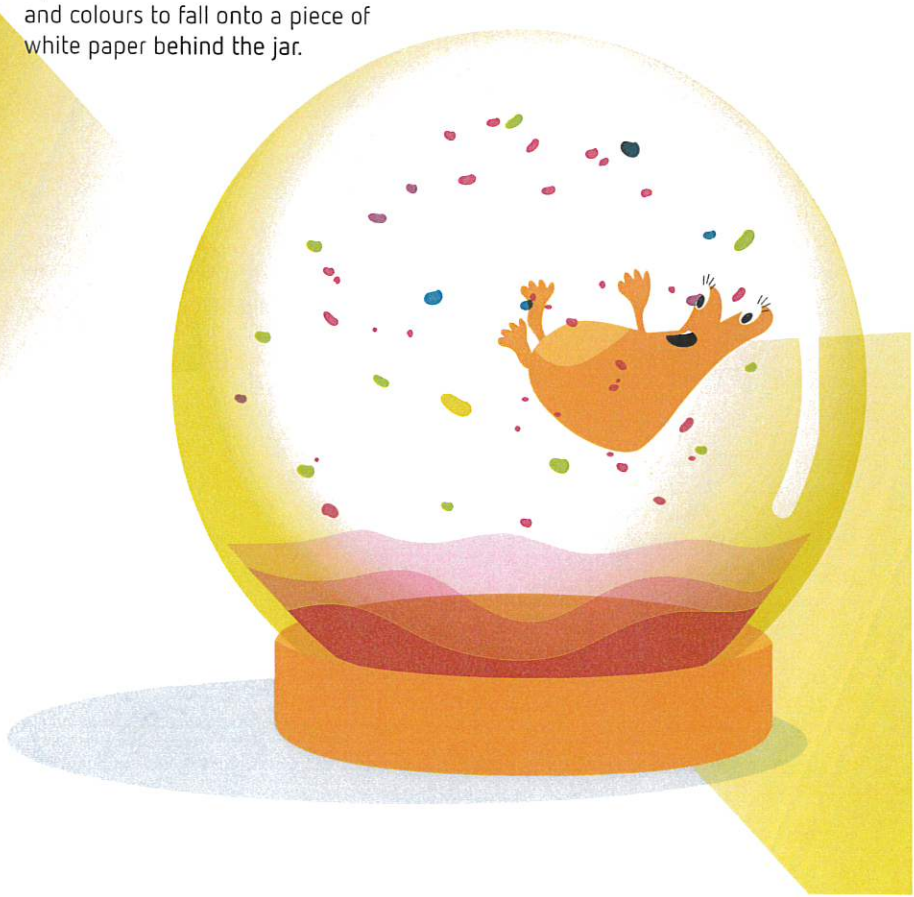
- What do you see when you add the shiny pieces to the water?
- How can you make the pieces move faster?
- What can you see when you shine the light?
- In what ways can you change the shadows?

At home

Can the children name ten items that they have in their home that would shine like the flitter does?

Skill unlocked

- A good communicator
- Curious



BRITISH SCIENCE WEEK

Millgate House Education

Innovating for the future

Ice gardens

About this activity

In this activity, children will produce beautiful ice gardens that attract their observations, stimulate their imaginations and can lead to creative outcomes (in speaking and listening, art or writing).

Time

30 minutes

Kit list

- Variety of leaves, flowers, buds
- Water
- Shallow trays
- Optional: food colouring
- Access to a freezer

Next steps

Make a collection of natural and manufactured materials. Tell the children that they need to decide which things can go in an ice garden. Remind them that only natural things can go into the ice garden.

Watch out!

- If children are collecting their own natural objects, check the policy for working outdoors and that there are not any harmful plants or contaminated objects in the area.
- Mind the wet floors when the ice melts! A wet floor is a slip risk and can cause injuries.

Instructions

1. For this activity, it is a good starting point to show the children 'one that I made earlier'. This helps them to visualise what their own garden could include. Put some interesting natural objects in the bottom of a tray. Pour in a shallow layer of water to float the objects and then place in the freezer. When it is frozen, add more water and freeze again.
2. As each child selects their samples, discuss differences and similarities between the flowers, fruits and leaves – consider colour, size, shape, number of petals, seeds, etc. Practice counting, or graph making, by observing how many different leaves or flowers are used.
3. Label the trays with each child's name or their bubble group. Add a shallow layer of water to their tray. Children will see the contents float on top of the liquid – discuss the problem of how to get the leaves and flowers inside the ice.
4. Place the trays in the freezer for a couple of hours and show the results. They may now see that they can put a second layer of water over the contents and freeze it again.
5. Give children time to observe the ice gardens as they melt.

Think and talk about

- Look closely at your ice garden – what can you see?
- Which of these are flowers/leaves/fruit? How do you know?
- Are all plants safe to pick?
- Where would you like to go to choose your samples?

At home

Ask children to tell their family how they made the Ice Garden through to the point at which it melted.

Skill unlocked

- Curious
- Observant

BRITISH SCIENCE WEEK

Innovating for the future

Crunchy architecture you can eat

About this activity

This activity is ideal to do at home. It encourages children to be creative and think of innovative designs to build some crunchy architecture with biscuits, wafers, crackers and edible cement.

Time

30 minutes

Kit list

- Different shaped biscuits and/or crackers, wafers
- Dark chocolate
- Bowl, water and saucepan
- Baking paper
- Cooker/microwave

Next steps

Discover more playful activities and inspire children to become creative scientists at okido.com

Watch out!

- Wash hands before you start.
- Children should only eat buildings created by them or members of their household.
- Be careful not to get the chocolate too hot. Check that the temperature of the melted chocolate is not over 25°C before using it. Transfer melted chocolate into a bowl and keep the hot saucepan out of children's reach to prevent burns or injuries.
- Check children's allergies beforehand and modify materials accordingly
- This activity can be messy so it would be good to put aprons on.

Instructions

1. Make the edible cement by melting some small pieces of chocolate in a 'bain marie' (a bowl on top of a pan of boiling water) or microwave. (An adult should do this.)
2. Use the melted chocolate like glue. When the chocolate goes hard, it will stick the biscuits together.
3. Make some edible biscuit buildings with multiple floors or even a roof! With chocolate stick biscuits you can build thin shapes. Pile up wafers like wooden blocks. Build a strong floor by sticking together two layers of rich tea biscuits. Construct strong posts by filling a biscuit hole with choco-cement and sticking in a round wafer. Thin crackers make good, strong roofs.
4. When you get bored, pretend to be a giant and eat your biscuit buildings.

Think and talk about

- What did you build?
- What shapes of biscuits/crackers/wafers are good for the roof? Floors?
- Why did you use this biscuit for this part of your building?

Skill unlocked

- Creative
- Problem solving