



STAR



Brilliant Bubbles

Organiser's Card



About the activity

This activity is designed to get children thinking about liquids, gases and bubbles.

Cosmic has a new bubble machine. All the bubbles are the same. He would like different bubbles.

Through this activity you will support children to:

- Carry out their own tests to try and make different shaped bubbles
- Carry out their own tests to try and make different sized bubbles
- Carry out their own tests to try and make different colour bubbles



Kit list

- Plastic trays or bowls
- Clean drinking straws - 1 per child
- Bubble wands
- Soft wire (e.g. florist's wire or pipe cleaners)
- to bend into different shape frames such as a triangle or square
- Bubble mixture
- Food colouring

What to do

1. Introduce the activity using the story. Ask the children if they have blown bubbles before, were they all the same?
2. Give out activity cards and equipment to the children.
3. Explain that they will be using the equipment provided to test if they can make different shape, size and colour bubbles.
4. Encourage children to discuss their ideas and how to carry out their investigations. Prompt questions:
 - How will they make sure their test is fair?
 - How will they record their results?
5. Support children to conduct their tests and make their own records of their results. They could also take photographs or make drawings.
6. Ask the children to present their findings to the rest of the group, they can be as creative in their presentation as they want - the activity card suggests a bubble competition.



Things to think about

Children will get better bubbles if they blow slowly and gently through a straw.

They will usually get bigger bubbles from a wand or a wire frame.

A bubble is a pocket of air, surrounded by a very thin film of liquid.

Water acts as though it has a stretchy skin. It is this that helps to make a round bubble shape. Scientists call this surface tension.

The colour of bubbles is due to the light reflecting off the bubble surface and creating what scientists call interference patterns. The pattern and colour changes according to the direction of the light and the thickness of the bubble's 'skin'.

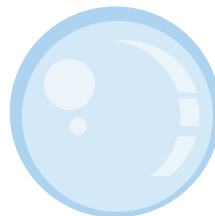
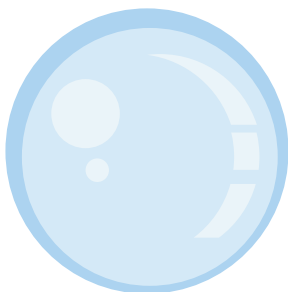
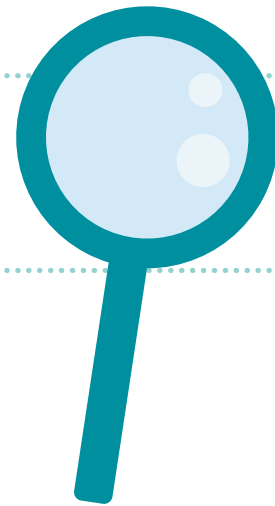
Keywords

- Bubbles
- Surfaces
- Gases

Watch out!

Children will create a lot of mess with their bubbles, so be prepared for this.

You can colour the mixture with food colouring, but when the bubbles burst the children get sprayed with drops of food colouring, so this is VERY messy.





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Activity Card

Cosmic is very excited. Today is his birthday!

His present is a big, bright purple bubble machine. When he turns the handle, dozens and dozens of bubbles float out into the air.

Gem arrives to wish him happy birthday. Cosmic shows her how his new bubble machine works.

“What lovely bubbles!” Gem shouts, as she jumps about trying to catch them.

“They are OK,” says Cosmic. “But they are all the same shape... And they are all the same size... And they are all the same colour. I wanted lots of different bubbles, but these are all the same.”

“You must be able to make different bubbles,” says Gem, peering into the end of the machine. “Perhaps there’s something wrong with it.”

“I’m not sure,” says Cosmic.

What do you think?

Your challenge

Can you find a way to blow different bubbles for Cosmic?

Cosmic thinks you can make bubbles with different shapes

Gem thinks you can make different size bubbles

Aunt Stella thinks you can make different colour bubbles



Discuss



Have you ever blown bubbles?
Do you think that they were all the same?

Getting started

Put some bubble liquid in a bowl or tray.
Use a straw to blow some bubbles. **Don't share your straw with anyone else.**
Dip the end of the straw in the liquid. Lift it out.
Now blow down your straw to make a bubble.
Try blowing gently and then blowing harder.
How do the bubbles change?

Test your ideas

Can you think of other ways to find out about bubbles?

Share your ideas

You could have a bubble competition to see how many different types of bubbles you can blow.

Extra things to do

Find out how long you can keep a bubble before it bursts.
Find out whether bubbles float or fall to the ground.
Find out how long you can keep a bubble in the air.

