

Brilliant bubbles

The story

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?

What do I do?

 Follow the structure on the ACTIVITY CARD Make sure that you give the children time to talk where this symbol shows. ►



- **2.** Read the story. Then get the children to talk to a buddy about the story and the ideas in the Concept Cartoon.
- **3.** Then the children will need equipment for blowing bubbles see Resources overleaf.
- **4.** Talk through how they might blow different types of bubbles. Encourage them to use their own ideas.
- **5.** When they have finished you might help them to decide which methods have been especially successful at blowing different bubbles.
- 6. There are follow up activities for children who have finished or who want to do more at home and earn a bonus sticker.



★ Handy hints

Background information

- ★ 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'.
- ★ The biggest bubble ever blown was 50 feet long and 2 feet in diameter. The longest bubble was 105 feet long. (Source – Guinness Book of Records)



Things to look out for

- ★ 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.
- ★ 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.

How can children share their ideas?

- ★ They could have a bubble competition to see what bubbles they can blow.
- ★ They could produce a poster to show the sizes or shapes or colours of bubbles that they made.
- ★ For more ideas, see website www.britishscienceassociation.org/ creststar

Resources

- \star 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 purchased is more reliable. See website for information about homemade bubble liquid www.britishscienceassociation.org/ creststar

Safety

- \star Children need to be careful if using wire.
- \star Clean up spills quickly to avoid slips.
- ★ Warn children not to suck on the straw, drink the bubble mixture or blow bubbles at each others' faces.



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