

# Music maker

## The story

Cosmic and Gem are having breakfast with Uncle Astro. Cosmic lifts the fruit juice out of the fridge. Clunk goes the bottle as he puts it down.

Gem has an idea. She begins to tap things gently with her spoon. Chink, chink, chink goes her mug. Plunk, plunk, plunk goes the teapot. Clung, clung, clung goes the fruit juice bottle. Tink, tink, tink goes Cosmic's glass.

"What a marvellous music maker you are this morning, young Gem," says Uncle Astro, as he tips tea into the mugs.

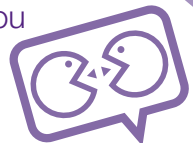

Cosmic fills his glass almost to the brim with orange juice. "Play it again, Gem," he says.

So Gem plays again. Chunk, chunk, chunk goes her mug. Plink, plink, plink goes the teapot. Cling, cling, cling goes the fruit juice bottle. Tunk, tunk, tunk goes Cosmic's glass.

"Hey, that was a different tune! How did you do that?" asks Cosmic.

"I don't know," says Gem. "I'm not sure either," Uncle Astro adds. "Let's find out and then we can play a tune."

## What do I do?

1. Follow the instructions on the ACTIVITY CARD. Make sure you give the children time to talk when you see this symbol. ▶ 
2. Read the story. Get the children to talk to a buddy about the ideas in the questions and the Concept Cartoon.
3. They can start by exploring what happens when you change the amount of liquid in a bottle. The children will need several bottles all of the same size and should tap them gently with a spoon. 
4. You could also give them other things to explore e.g. different sized glass bottles, jars, glasses, teapots, mugs or clay plant pots.
5. Encourage the children to work together with their buddy to put the sounds in order from low to high notes.
6. Can the children create a simple tune and share it with everyone else?
7. There are follow up activities for children who have finished or want to do more finding out at home and earn a bonus sticker.

## ★ Handy hints

### Things to look out for

- ★ Cracked containers or objects touching each other do not produce clear notes. It is good for children to discover this themselves. If it is affecting their exploration then it is worth pointing it out to them.

### How can children share their ideas?

- ★ The children can play simple tunes and share anything that surprised them. They could make a musical display.

## Background information

- ★ Whenever a sound is made, something vibrates. Sound can travel through air, solid or liquid. When you tap a bottle of water, the water vibrates. The more water in the bottle, the lower the note becomes. So we can create different notes (i.e. change the pitch), by changing the amount of water in a bottle.
- ★ Another way of making a sound is to blow across the top of a narrow necked bottle or tube sealed at the bottom. The sound is made by air vibrating in the bottle. The more air in the bottle, the lower the note. So a nearly full bottle makes a low note when tapped and a high note when blown across.
- ★ Other things will produce sound when tapped, blown or plucked. Different sized tubes, clay flowerpots, cups, mugs or glass containers can all produce different notes. String, elastic bands or rulers of different lengths make different sounds when plucked.
- ★ For more information about making music with everyday objects, see [www.britishecienceassociation.org/creststar](http://www.britishecienceassociation.org/creststar)

## Resources

- ★ Several identical glass bottles
- ★ Additional glass or pot containers of different sizes e.g. flower pots, mugs, cups, glasses or jars
- ★ Spoons, pencils or other tappers
- ★ Tubes with one end sealed and/or bottles with narrow necks to blow across e.g. milk or water bottles. Wine bottles work best, if you wish to use them. (optional)
- ★ Food colouring (optional)

## Safety

- ★ Care needs to be taken when using glass. Check your organisation's policy for using glass. Clear up water spills and breakages quickly. Encourage children to tap gently.

