

Sound and hearing

Use these ideas to encourage the children's thinking around the QCA topic 'Sound and hearing'

Whole class

- Set up a sound display with pictures of a variety of sound sources and objects for the children to handle and investigate. This could include bells, musical instruments, toys and so on.
- Hide a mobile phone in the classroom, make a call to the hidden phone and challenge small groups of children to locate the phone by listening to the ringing.
- Using books and the Internet, carry out research on how other animals use sound. Look at how some animals can move their ears independently, how their ears are shaped and how they move to detect sound effectively. Which animals have the most effective hearing? Discuss how bats and dolphins use sound to detect prey. Ask challenging questions such as *Do all creatures have ears? Where are the ears on a bird or a frog?* and so on.
- There are times when sound needs to be muffled. Place a loud source of sound such as a mechanical alarm clock in a box and investigate which materials deaden the sound most effectively. Provide different types of material such as cloth, wool, plastic, paper and bubble wrap, and ask the children to predict which they think will work best. Pack the materials around the clock and listen to decide which material provides the best soundproofing.
- To explore how vibrations produce sound, place a few grains of rice on the skin of a drum. When the drum is struck, the children will be able to see the rice moving with the vibrations of each beat. Try striking another drum close to the drum with the rice on and observe the results.

Group/independent

- Ask the children to record as many different sources of sound as they can. What sounds do they hear most often? What sounds do they rarely hear? Are there any sounds they hear that have a meaning or signal something, for example, an alarm clock, a telephone ringing, the school bell or whistle?
- Encourage the children to look closely at musical instruments and work out how the sound is produced and changed. Include instruments that are plucked, blown, hit and scraped. The children could work in pairs or small groups to classify the instruments according to chosen criteria.
- Make a variety of musical instruments. This can be closely linked to D&T projects. There are many opportunities for scientific investigation, for example, testing the best materials for making the skin of a drum, the most suitable objects to put in a shaker, or stretching elastic bands to different lengths and plucking them to see how the sound is changed. Compare the results to real instruments.
- Provide a collection of everyday objects made from different materials. Working in pairs with a screen between them, the children take turns to make sounds with the objects. Can their partner guess the object or name the material it is made from by the sound it makes?
- Make a simple ear trumpet and a megaphone using card. Cut from a large piece of card, a shape that will make a cone when the edges are overlapped and glued. When placed near the mouth this will amplify the voice and when placed near the ear it will amplify the sounds that can be heard. Experiment with different-sized cones to see which works best.

Activities and poster devised by Mark Longmore.

