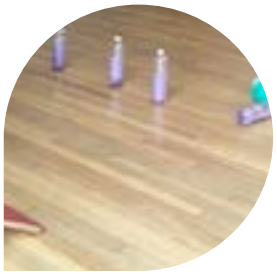

Sound Skittles

SEN FOCUS

PMLD – gross motor skills, anticipation, responding to sound and movement

ACTIVITY OVERVIEW

In this activity, pupils create their own 'skittles' by adding different materials to empty water bottles. They then explore the force needed to knock over the skittles and the sounds made as a result.

Key vocabulary/symbols required: ears, hear, move, roll, push, fall, loud noise, quiet noise, heavy, light

Description of Activity

- Show pupils a range of pourable materials and allow them to choose what they wish to pour into the empty bottles.
- Using the funnel, help the pupils fill the bottles with the material to different heights. (Maximum 5 different levels)
- Position the bottles 1 metre in front of the end of the ramp and let the pupils push/roll the ball down the ramp to knock over their skittles.
- Listen for the loudest sound when the skittles fall on the hard floor.

KEY FACTS/SCIENCE

A moving object such as a heavy ball contains an amount of energy that is related to its mass and velocity. When it collides with another object, the skittle, it stops, and this energy of motion – its kinetic energy – is transferred to the bottle. The energy moves the skittle itself (kinetic energy) and it is also dissipated as sound and heat.

Links online: Explorify's Bottle Orchestra https://explorify.wellcome.ac.uk/en/activities/whats-going-on/bottle-orchestra

RESOURCES

Ramp/piece of wood that can connect to wheelchairs (if required)

Range of 2 litre pop or water bottles (up to 5)

Sand and/or a range of pourable materials such as gravel, glitter, water, UV paint

Funnel

Heavy ball

QUESTIONS/FURTHER LEARNING

- Does the fullest bottle always make the loudest sound?
- What happens when we change the height of the ramp?
- What happens if we fill the bottles with different materials?
- What happens when we change the ball?