

Unit 1E Pushes and pulls

ABOUT THE UNIT

In this unit children learn about different sorts of movement and how to describe these. They relate movement to pushes and pulls.

Experimental and investigative work focuses on:

- making observations and communicating these.

Work in this unit also offers opportunities for children to relate understanding of movement to everyday contexts such as road safety.

This unit takes approximately 7 hours.

WHERE THE UNIT FITS IN

Builds on Unit 1A 'Ourselves'

Children need:

- to know the names of parts of the body.

Links with Units 1C, 2A and physical education.

VOCABULARY

In this unit children will have opportunities to use:

- words related to movement, eg *twist, spin, swing, slide, swerve, hop, jump, turn, fast, slow, push, pull*
- words and phrases for making comparisons of movement eg *go faster, go slower, go further*
- words and phrases related to safety eg *safe, danger, be careful*
- expressions giving reasons using 'because'.

RESOURCES

- collection of toys which move in different ways
- secondary sources eg *video, CD-ROM* about road safety
- playground equipment or PE apparatus
- toy windmills, water wheels, and sand wheels
- equipment for blowing bubbles

EXPECTATIONS

at the end of this unit

most children will:

observe, describe and compare movements they make and movements of objects in terms of speed or direction; describe how to make a familiar object start moving by pushing or pulling and recognise dangers to themselves in moving objects

some children will not have made so much progress and will:

observe and describe movements they and objects make

some children will have progressed further and will also:

describe how windmills or water wheels are made to move and why it is dangerous to try to stop a heavy object moving

LEARNING OBJECTIVES

POSSIBLE TEACHING ACTIVITIES

LEARNING OUTCOMES

POINTS TO NOTE

CHILDREN SHOULD LEARN


- that there are many sorts of movement which can be described in many ways

- ◆ Visit the local park or school adventure playground or watch traffic from the school gate or ask children about things they encounter frequently that move. Talk with children about them.

CHILDREN

- describe the movement of objects *eg in a park or busy street* using words and phrases *eg swing, turn, go round, go faster, slow, fast*

Children sometimes think that 'movement' means only moving from place to place. It is important to emphasise movements in which objects change direction, speed up or slow down.

 **SAFETY** – All off-site visits must be carried out in accordance with LEA/school guidelines.

- to observe and describe different ways of moving

- ◆ Ask children to move in different ways and talk with them about which parts of their body move. Children explore movement and observe and describe others' movements and match movements to descriptions.

- describe a series of movements they make *eg in a PE or dance activity* or make a series of movements matching a description given by another child

- that pushing or pulling things can make objects start or stop moving
- to identify similarities and differences between the movement of different objects
- to make suggestions about how objects can be made to move and to find out whether they were right

- ◆ Challenge children to find things in the classroom that need either a pull or a push to make them move *eg chair, door, drawer, piano keys*. Ask children to stick labels of 'push', 'pull', 'push and pull' to objects. Ask them if they could move without being pushed or pulled. Present children with a collection of toys. Ask them to suggest how to start them moving, to test their ideas and to decide whether they were right.

- identify objects which they moved by pushing and those which they moved by pulling *eg I moved the piano keys and the piece in a jigsaw by pushing and the sticky tape and desk drawer by pulling*
- say whether their predictions about getting an object moving were correct *eg I was right, you push down on the jack-in-a-box and let go and it jumps up*

- to recognise hazards and risks to themselves in moving objects

- ◆ Show children an object *eg a toy trolley* moving and ask them to use different ways to stop it moving. Ask children why it is dangerous to try to stop some moving objects. Extend the discussion to road safety using secondary sources *eg video, CD-ROM*.

- describe how an object might be stopped and explain why it can be dangerous to try to stop some moving objects *eg I wouldn't be able to stop a car because it's heavy and it would push me over; I shouldn't go behind a moving swing because it could knock me over*

 **SAFETY** – Care is needed with heavy, moving objects and with flying objects *eg balls, projectiles from catapults*.

- that it is not only ourselves that make things move by pushing
- to ask questions about what is causing movement

- ◆ Ask children to look at things moving in the wind, *eg trees, washing, toy windmills*, and at water wheels and sand wheels and to speculate about what is causing the movement. Extend to children blowing bubbles.

- identify the cause of motion *eg the water pushed the wheel around or the wind made the branches move*

Some children think that trees make the wind by waving their branches.

At this stage children can describe observations in terms of 'wind' rather than 'moving air'.

