

# Skateboarding Theory

## You need

- ★ a skateboard      ★ chalk      ★ strong string      ★ a stick (a relay baton works well)
- ★ a reel tape measure      ★ a large protractor      ★ a classmate

## Activity One

Daniel and Rameka are trying out their new skateboards on a sloping path.



The skateboard goes in a straight line when the deck is level.

How can I turn more sharply?



1. Rameka practises shifting his weight from one side to the other without moving his feet.
  - a. How does he do this? Try it yourself. What do you experience?
  - b.
    - i. What happens as your weight shifts from one side to the other?
    - ii. How are direction and speed affected?
2.
  - a. Set up some cones in a straight line. Do some trialling to find out how close the cones can be while still allowing you to move around them smoothly.
  - b. Discuss with a classmate what affects how close the cones can be and why.

## Activity Two

1. a. With your classmate, use chalk and string to make some circles with different radii (for example, 2, 3, and 4 metres). Start with a string length of 2 metres.



- b. Use your hands to push a skateboard around each circle. Try to maintain contact with the curve.

Observe what happens to the deck and truck as you push the skateboard around the different-sized circles.



2. a. What is the smallest circle you can move the skateboard around and why?  
b. Discuss how this relates to the line of cones in **Activity One**.
3. Examine what happens to the truck and wheels as you shift your weight from side to side on the skateboard:
  - a. Why do the wheels move forwards and backwards?
  - b. How is a skateboard truck like a see-saw? How is it different?

