

Visual science

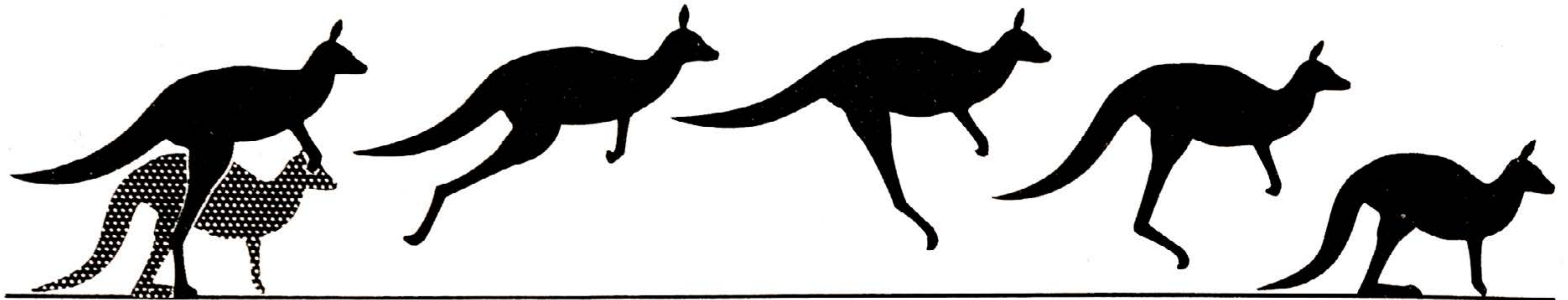
Jumping and falling

Touch the pink buttons and see what happens.

◀ ▶ Use the arrows to move backwards and forwards.

✕ Touch the cross to close a window.

Jumping and falling



As the kangaroo's strong back legs thrust down and back against the ground, its body is lifted up and forward.

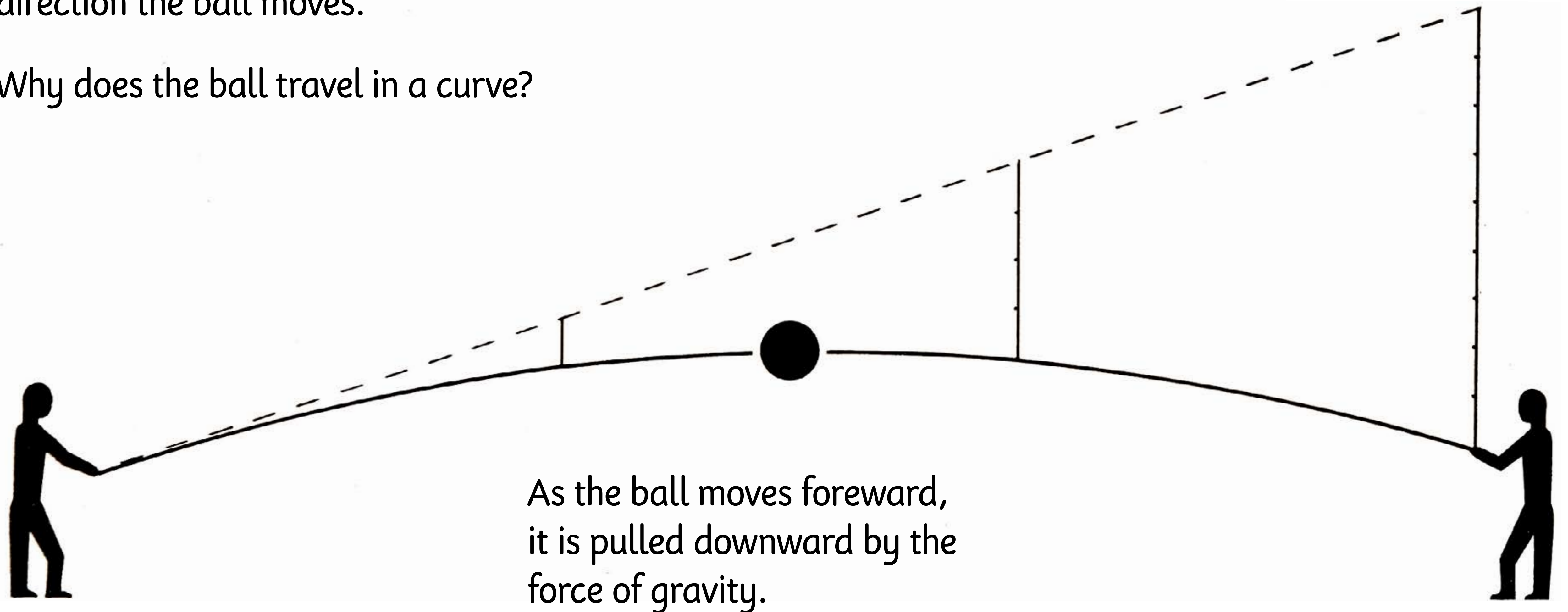
The force created when it falls back to the ground makes it less effort to jump up again.

Jumping and falling

The direction in which the kangaroo moves could be shown by a curved line like this.

The dotted line represents the direction a boy throws a ball, but the curved line represents the direction the ball moves.

Why does the ball travel in a curve?

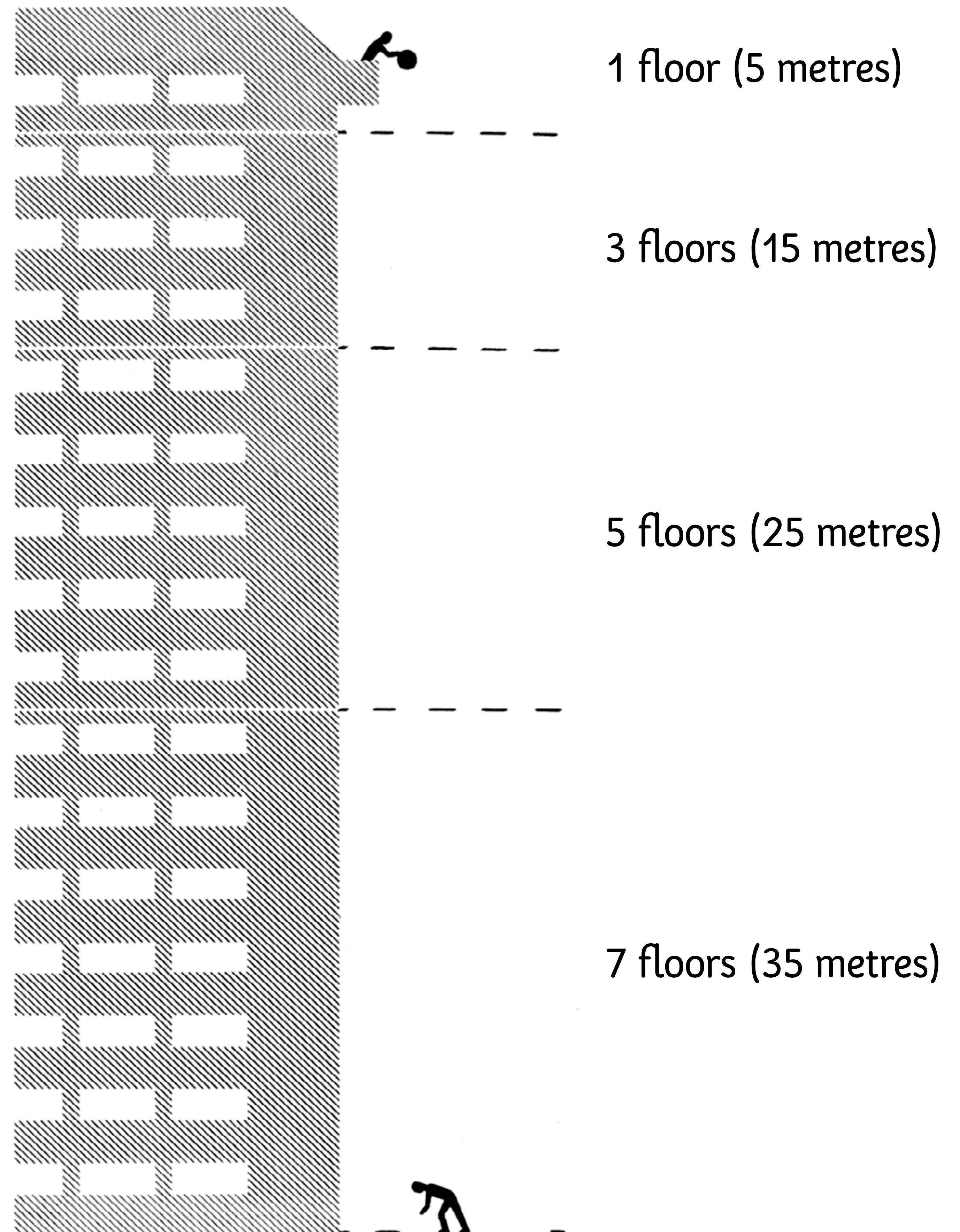


Jumping and falling

A girl drops a ball from the top of a very tall building.

Each of the dotted lines represent one second of time.

The ball falls one floor (5 metres) in the first second and gradually falls faster. By the time the ball reaches the floor, it has fallen 16 floors (80 metres).



Jumping and falling



Two cyclists start at the same time.

Who travels faster, the cyclist on the steep slope or the one on the gentle slope?

The cyclist on the steeper slope goes faster than the cyclist on the gentler slope.

This is because the force of gravity is stronger when travelling down the steeper slope.

Gravity also makes both cyclists go gradually faster: their speed increases as they cycle down the hill.

