

MD 2007

Speed Up Slow Down Stop

Forces and Movement 2E

- ▶ Pictures to talk about
- ▶ What can forces do?
- ▶ Bikes
- ▶ QCA

In PE, how would you **kick** a ball to your partner to make it go **faster** or **slower**, or **change direction**?

Can you describe what you would do?

How would you **throw** a ball to your partner to make it go **faster** or **slower**, or **change direction**?

Could you bounce a ball and make it go **faster** or **slower**, or **change direction**?

How would you **hit** a ball with a bat to make it roll along the floor? How would you make it go **faster** or **slower**, or **change direction**?

Here are some more pictures for you to think about.

a scooter

a slide

How can you make yourself go **faster** or **slow down** or **stop** when you play on these?

a bike

What about these? How could you go **faster** or **slow down** or **stop**?

a canoe

a rope

When you want to **move** something you have to give it a **push** or a **pull**.

Nothing will move unless someone or something uses a **force** (a **push** or a **pull**) to move it!

If you spin a coin or a dice will it go on spinning or will it eventually stop?

Something that is moving will **soon stop** – it can't go on moving for ever... but it won't start moving again until someone (or something) uses a **force** to move it.

Things will stop if they hit a heavy object...

If you walked in front of this swing it would **push** you over!

Pushing against something can speed it up.

push harder

If you want to make something **move faster** you have to

Some things can be made to move by **pulling** them. If you want them to move faster you have to

pull harder.

How would you **slow down** the trolley or a roundabout in the park?

Pulling something can slow it down.

If you want to slow it down quicker you have to.....

pull harder.

Pushing or **pulling** can make something **change direction**.

You can make it change direction by putting an object in front of it or by pushing more on one side.

Forces can be used to make things **speed up** or **slow down** and a **force** can be used to **stop** something from moving.

The **pushes, pulls, twists** and **squeezes** that we use can make objects **move, speed up, slow down, stop moving, change direction** and they can **change the shape of objects!**



What do you **push** and **pull** on a bike to make it start moving and to stop it moving? [Answer List](#) 

Objectives

Children should learn:

- that pushes or pulls can make things speed up or slow down or change direction

Activities

- Present children with a collection of toy cars and ask them how to make them move faster, slower, or change direction. In PE ask children to throw bean bags to each other or hit soft balls to each other and suggest how to make them move faster or slower or change direction.

Outcomes

Children:

- describe how to make things speed up or change direction eg by saying when I push the car hard it goes faster and faster, when I hit the ball it went off to the side

Points to note

Forces make objects 'speed up' which implies getting faster continuously. The term 'move faster' could imply simply going from one steady speed to another.

Objectives

Children should learn:

- to explain how to make familiar objects move faster or slower

Activities

- Ask children to talk about how to make themselves move *fast* eg on a bicycle, roller blades, a slide and how they make themselves slow down. If possible go into the playground where children can demonstrate using equipment eg scooters, slides, swings and see how they make themselves slow down. Ask them to record their ideas in drawing and simple writing eg a story.

Outcomes

Children:

- describe how they can make themselves slow down, eg I held onto the side of the slide and this slowed me down

Points to note

What do you push and pull on a bike to make it stop and go?

- Pedals to move off and accelerate
- Brakes to stop
- Handle bars to turn

These show some of the effects of pushes and pulls.

[back](#)

