

# STEM Challenge Support materials

## Build a ramp for a toy car

This pack includes...

p2: Challenge/Questions card

p3: Posters

p4: Practitioner notes

p5–8: Word cards (&blanks) (for display or as flash cards)

p9–11: 'What did we do?' sheets (for writing, drawing, or adding a photograph)

p12–14: 'My experiment' sheets (for writing, drawing, or adding a photograph)

## ★ STEM ★ Challenge ★

Can you...

...build a ramp for toy cars  
(to go down safely)?



## ? STEM ? Questions ?

What happens if the  
ramp is a steeper slope?

*What happens if the ramp  
is a gentler slope?*

Does the type of car  
make a difference?

*Why does the car  
move?*

# Build a ramp!

What will you build with?

What will happen to the car?



### Practitioner notes

#### Items that might be useful

- Toy cars
- Cardboard/Junk modelling materials

Encourage a short discussion about a toy car going down a ramp or slope.

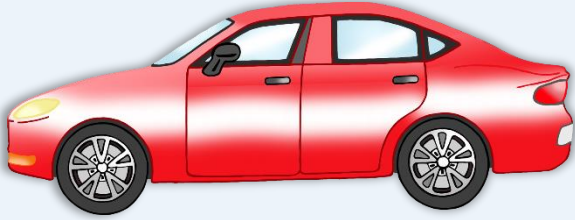
**What could we use to make the ramp or slope?**

Give the children time to explore their ideas before seeing the gathered materials.

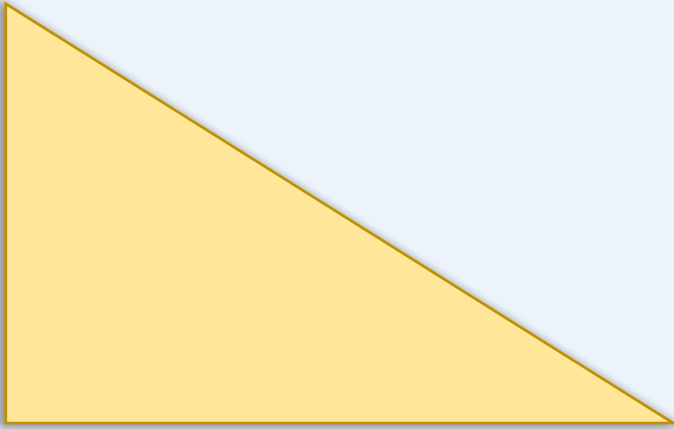
**Which of these items would be helpful? – Could the car travel through a tube or a box?**

Allow the children to create their ramps and then observe and investigate with as much independence as possible. If needed, help them to see what happens when a slope is steeper or gentler.

**What did you find out? – Why does the car move down the slope?**



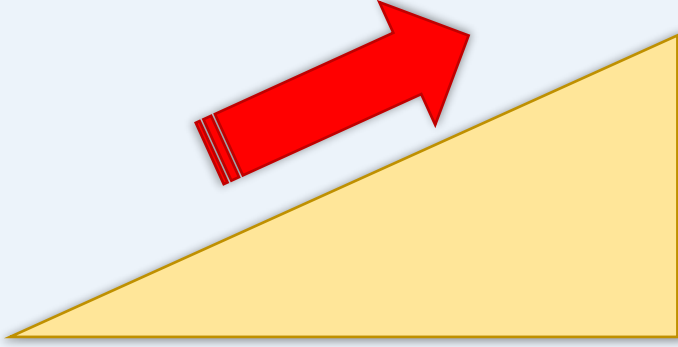
toy car



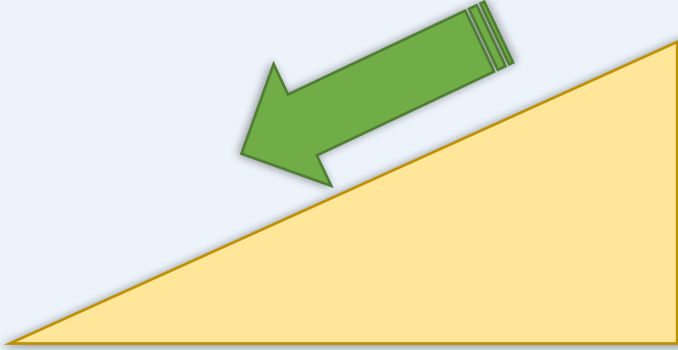
steep  
slope



gentle  
slope



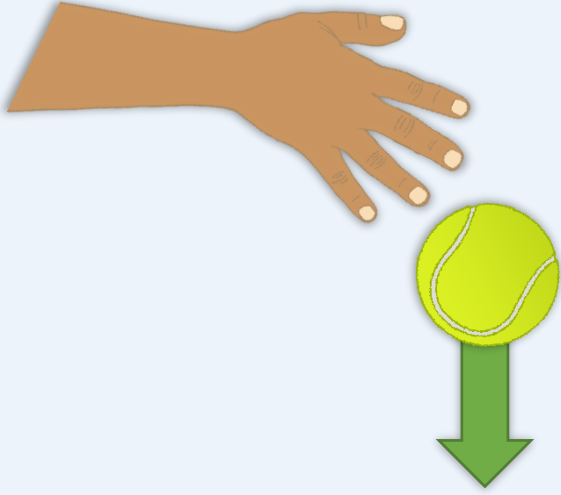
up



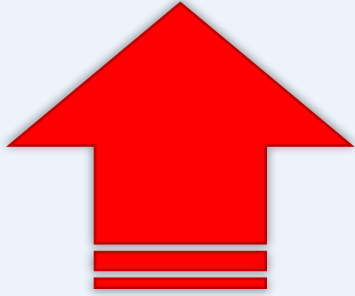
down



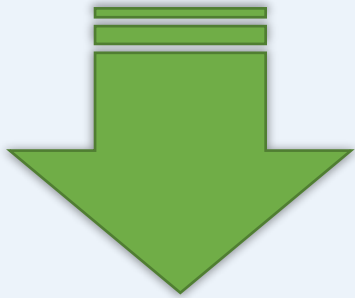
wheel



gravity



up



down

A large, empty rounded rectangular box with a blue border, intended for writing or drawing.A large, empty rounded rectangular box with a blue border, identical in style to the first one.A large, empty rounded rectangular box with a blue border, identical in style to the others.





# What did we do?



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# What did we do?



A large, empty rectangular box with rounded corners and a black border, intended for drawing or writing.

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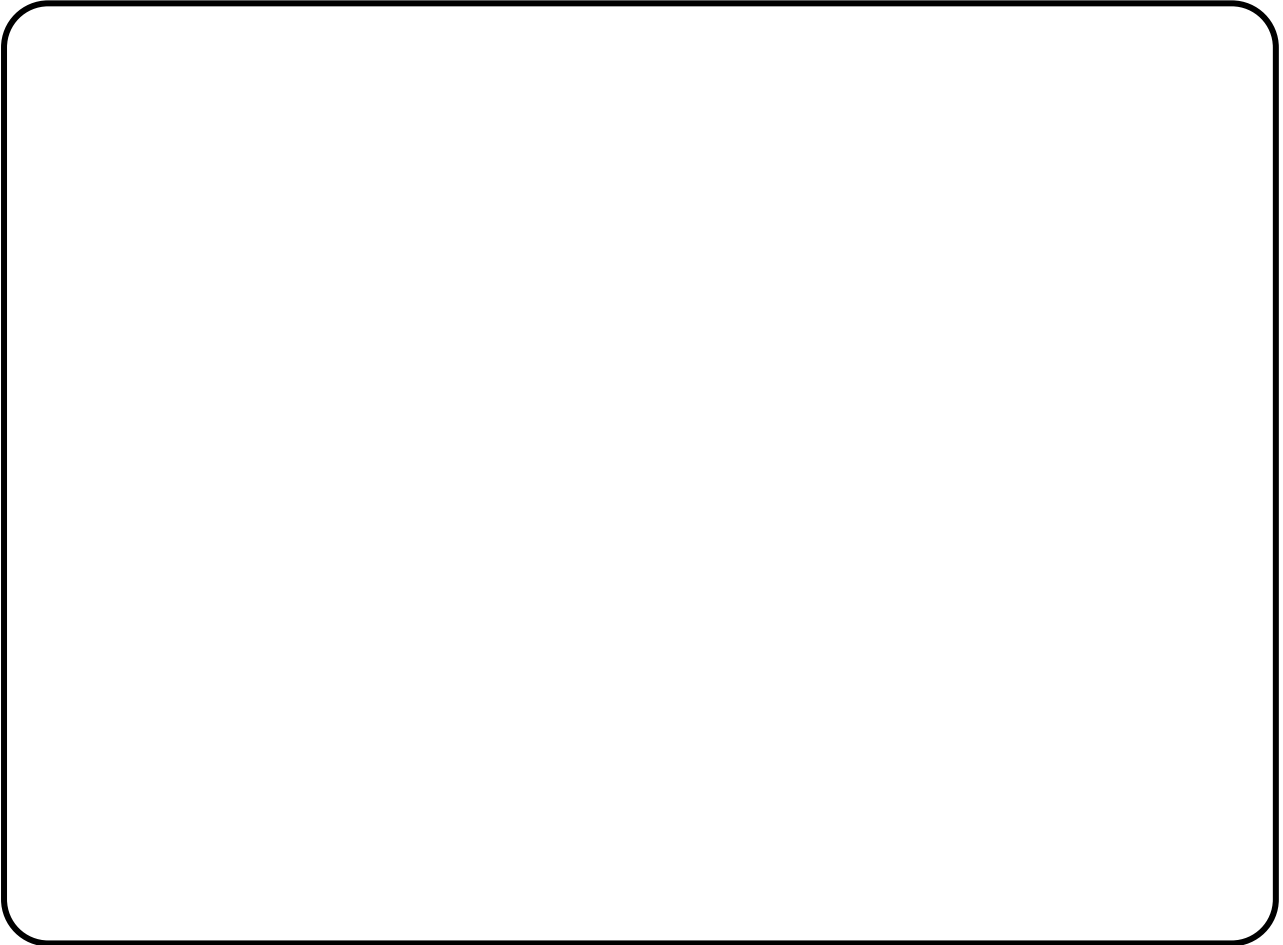
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What did we do?



# My experiment

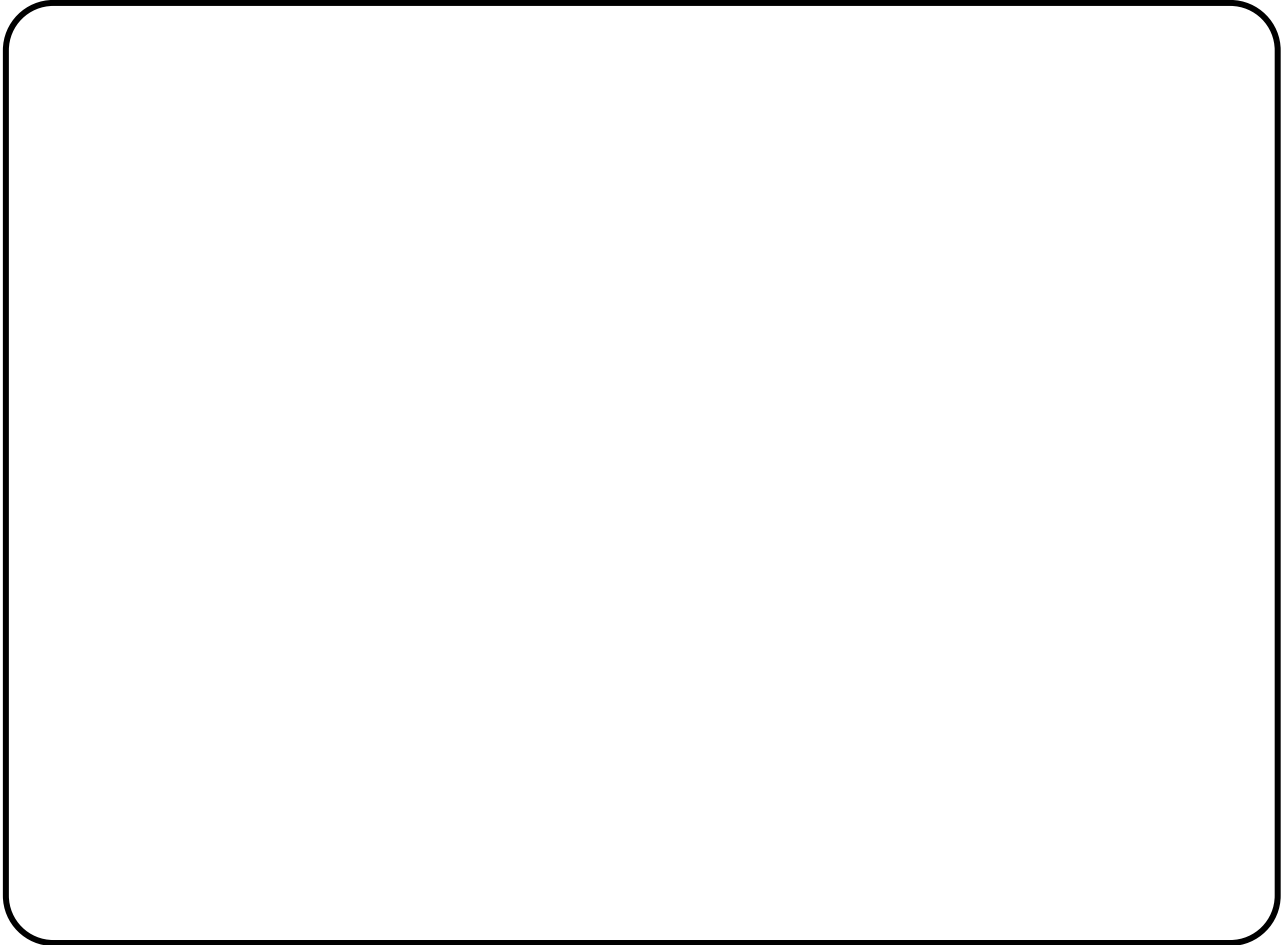


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# My experiment



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# My experiment