

FORCES AND MOVEMENT

Science MiniSATS - Unit 2E

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Name

Score

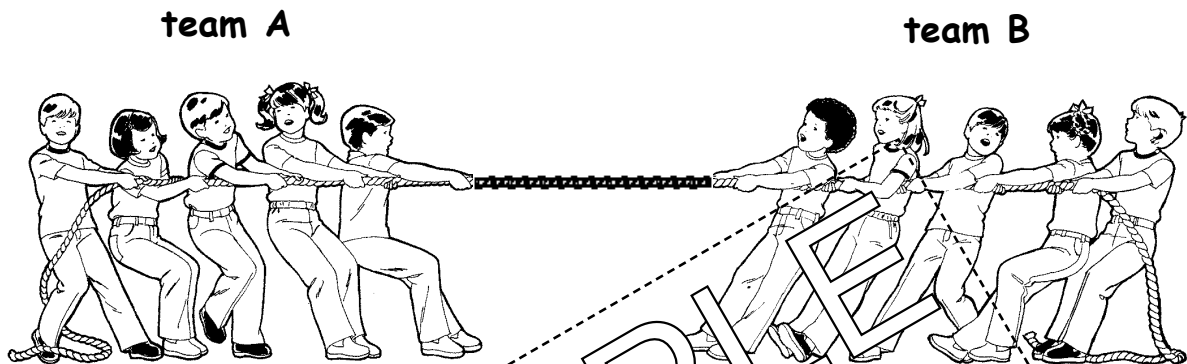
%

Level

1

Rope contest

2E



How many children are in each team? _____



Is team A pulling or pushing? _____



Is team B pulling or pushing? _____

What must a team do to win the contest?



2

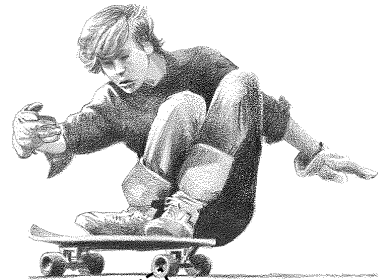
Out and about

Choose one statement to describe how each of these can speed up. Write your answers in the boxes.

push with arms

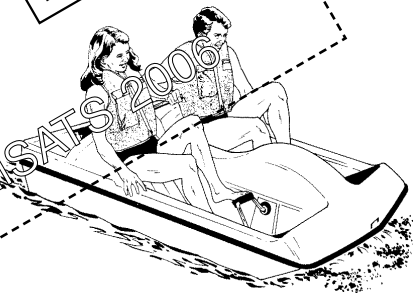
pull with arms

push with legs



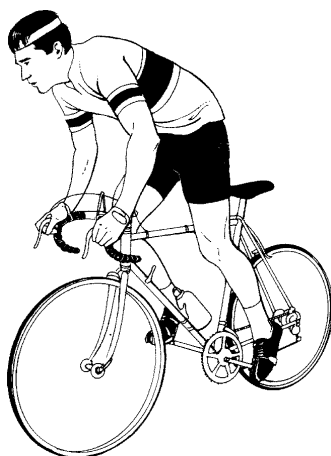
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SAMPLE

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Tim's bike

a

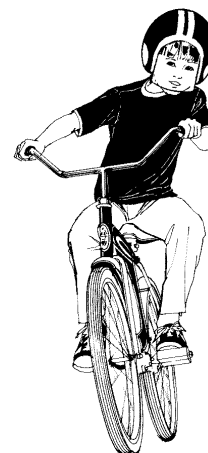
He pulls with his left hand and pushes with his right.

b

He pulls with his right hand and pushes with his left.

c

He pushes the pedals with both feet in turn.



Tim is learning to ride a bike. Choose one of the 3 sentences to answer these 3 questions - a, b or c.



How does Tim turn to his left?



How does Tim turn to his right?



How does Tim speed up?

If Tim's bike has brakes, how can he slow down?



How does he slow down if he does not have brakes?



Pushing a toy truck



Sam pushes his toy truck along the floor to see how far it moves. He does this 6 times.



The table shows Sam's results.

push 1	5 pencils
push 2	3 pencils
push 3	4 pencils
push 4	7 pencils
push 5	6 pencils
push 6	5 pencils

What is Sam using to measure the distance?



How far did the truck move with the third push?

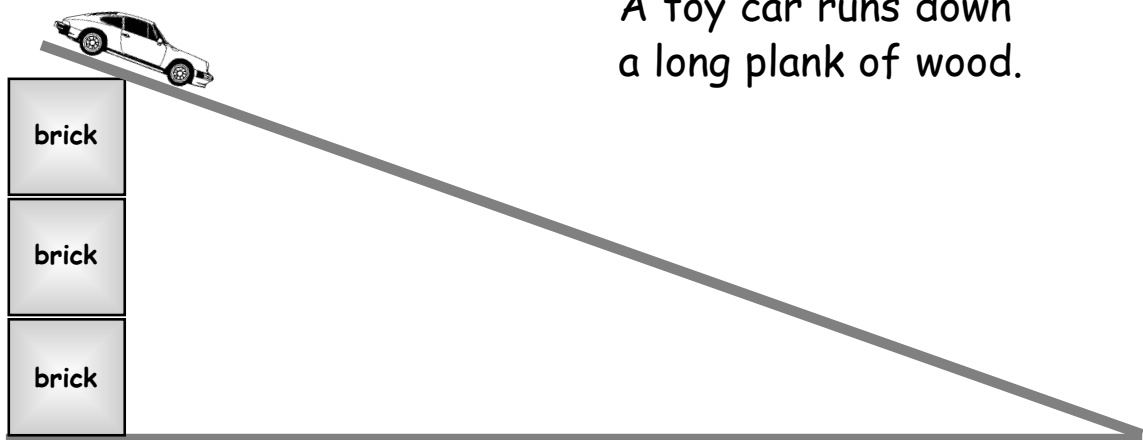


Which push caused the truck to move the furthest?



Which pushes moved the truck the same distance?





A toy car runs down a long plank of wood.

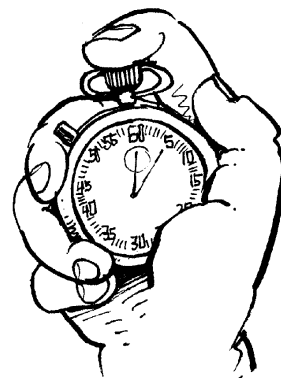
What has been used to make the plank slope?



How would you make the slope even steeper?



The time taken for the toy car to reach the bottom is measured. Slopes using 1, 2 and 3 bricks are used.



On which slope will the car move the fastest?

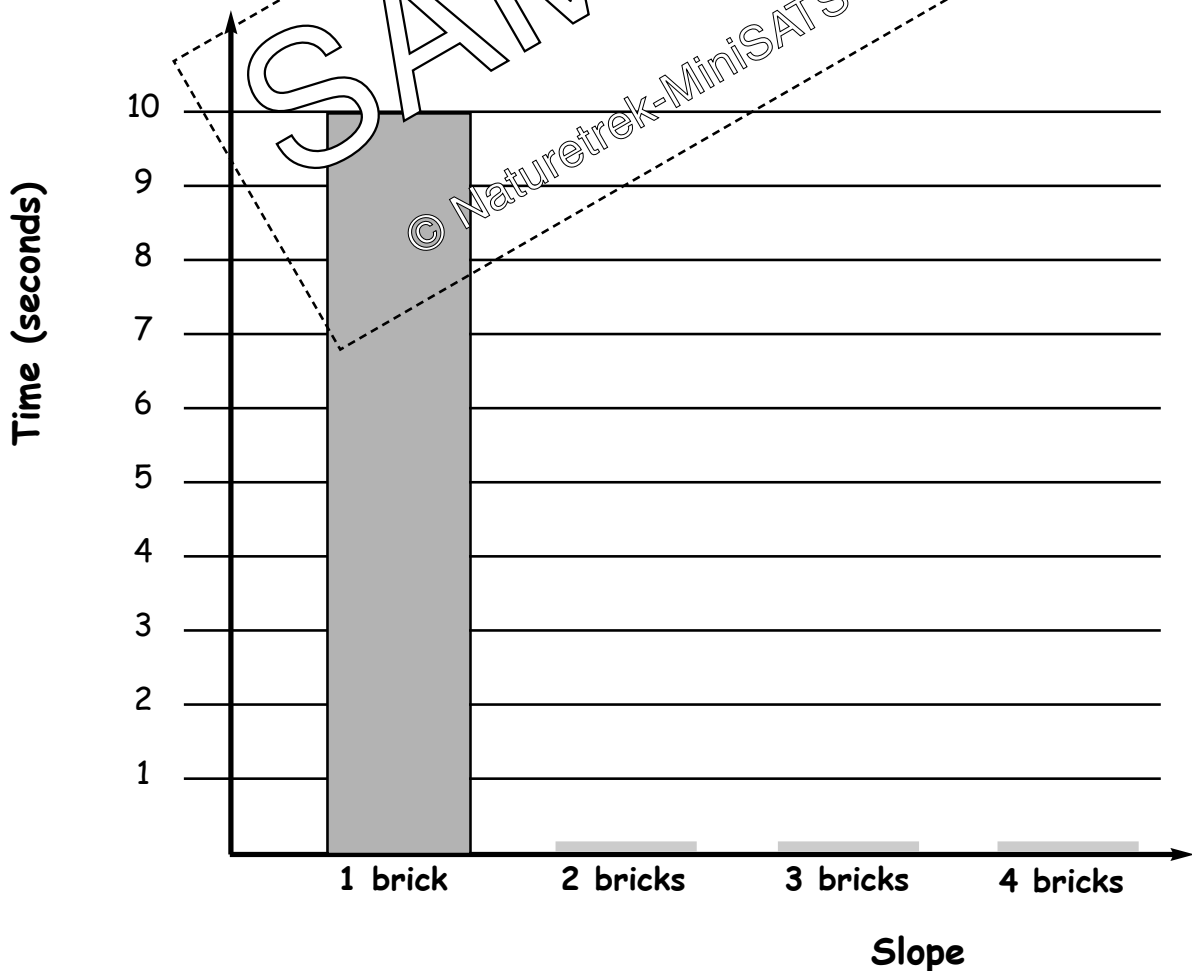


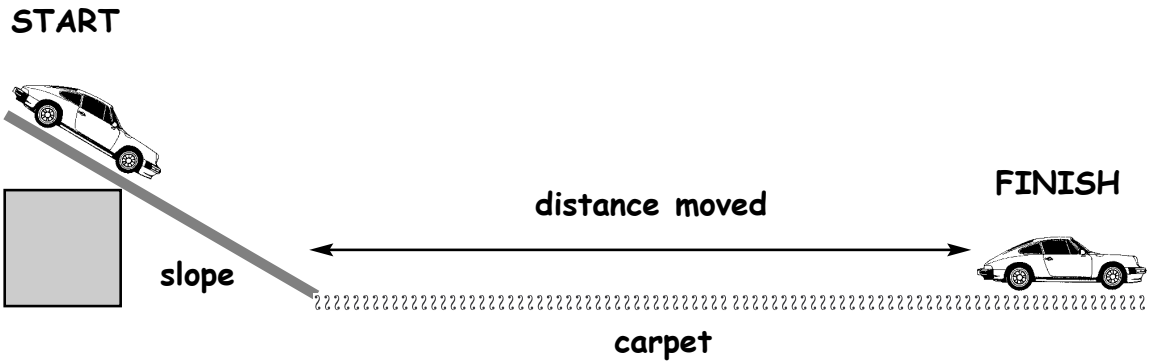


Jo tried this investigation. She used up to four bricks. Her results are shown in the table.

Slope	Time
1 brick	10 seconds
2 bricks	7 seconds
3 bricks	4 seconds
4 bricks	2 seconds

Finish the graph. One has been done for you.





Five different toy cars are tested running down a slope and along a carpet. The distance each one moves along the carpet is measured in centimetres.

What can be used to measure the distance moved?



To make it fair, which one of these is important?

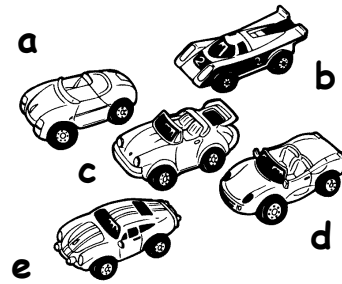


- cars must be white in colour
 - cars must start at the same place
 - cars must be new
- tick (4)
1 box

If one of the cars ran off the slope before reaching the carpet, what would you do?



Car	Distance moved
a	65 cm
b	25 cm
c	73 cm
d	86 cm
e	58 cm



These are the results of the investigation.



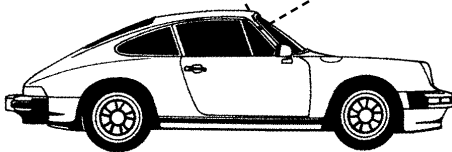
Which car moved the **biggest** distance? _____



Which car moved the **smallest** distance? _____



How many cars moved **more than 50 cm**? _____



One of the toy cars had a problem during the test. Its wheels were a bit stiff.

Which car do you think had a problem? Give a reason.