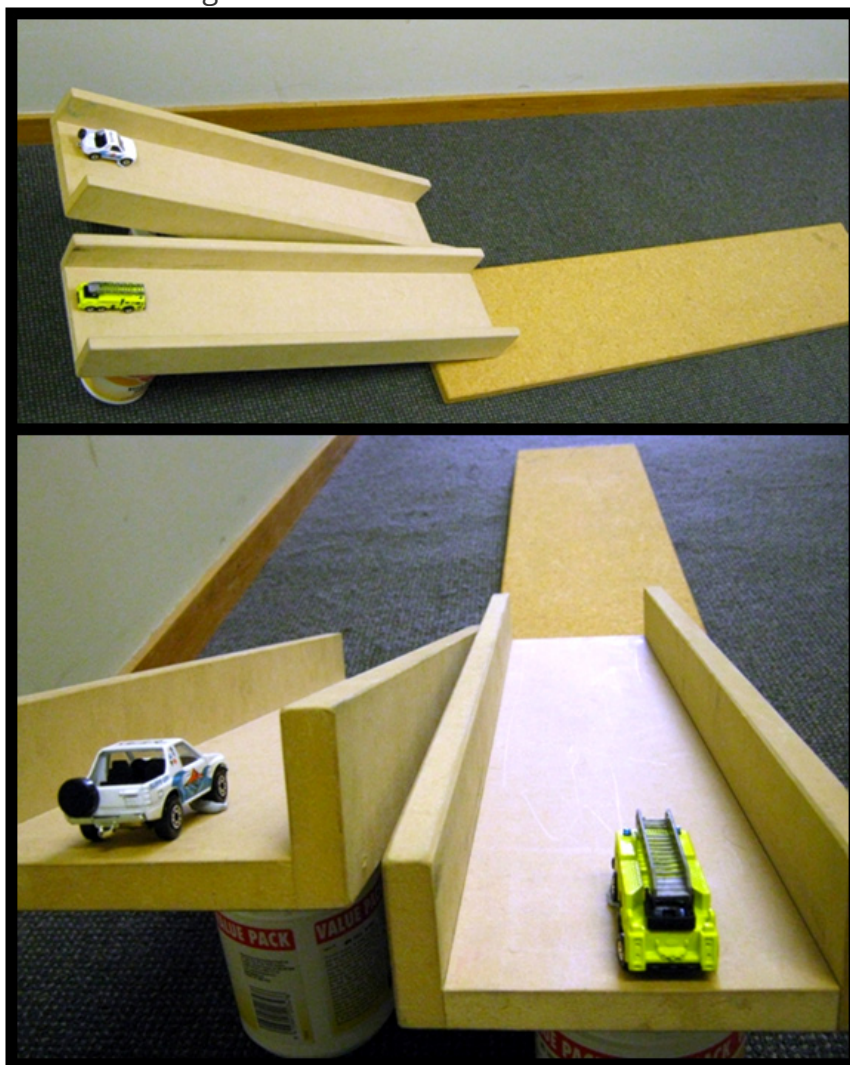


## Ideas about forces and energy

**This task is about explaining what affects how far toy cars roll.**

John, Margaret, and Deepak like to play with toy cars. They let the cars roll down a slope and then along the floor. One car goes further along the floor than the other.



*Image source: NZCER*

- a. John thinks that the carpet might affect how far each car goes. Why might the surface of the floor affect the distance the car goes?

b. Margaret thinks that one car always goes further than another. Why might the type of car affect how far the car goes?

c. Deepak thinks the car goes further if it rolls down a steeper track. Why might the steepness of the track affect how far the car goes?

d. Some cars go further than others, but all of them stop in the end. Explain why they stop.