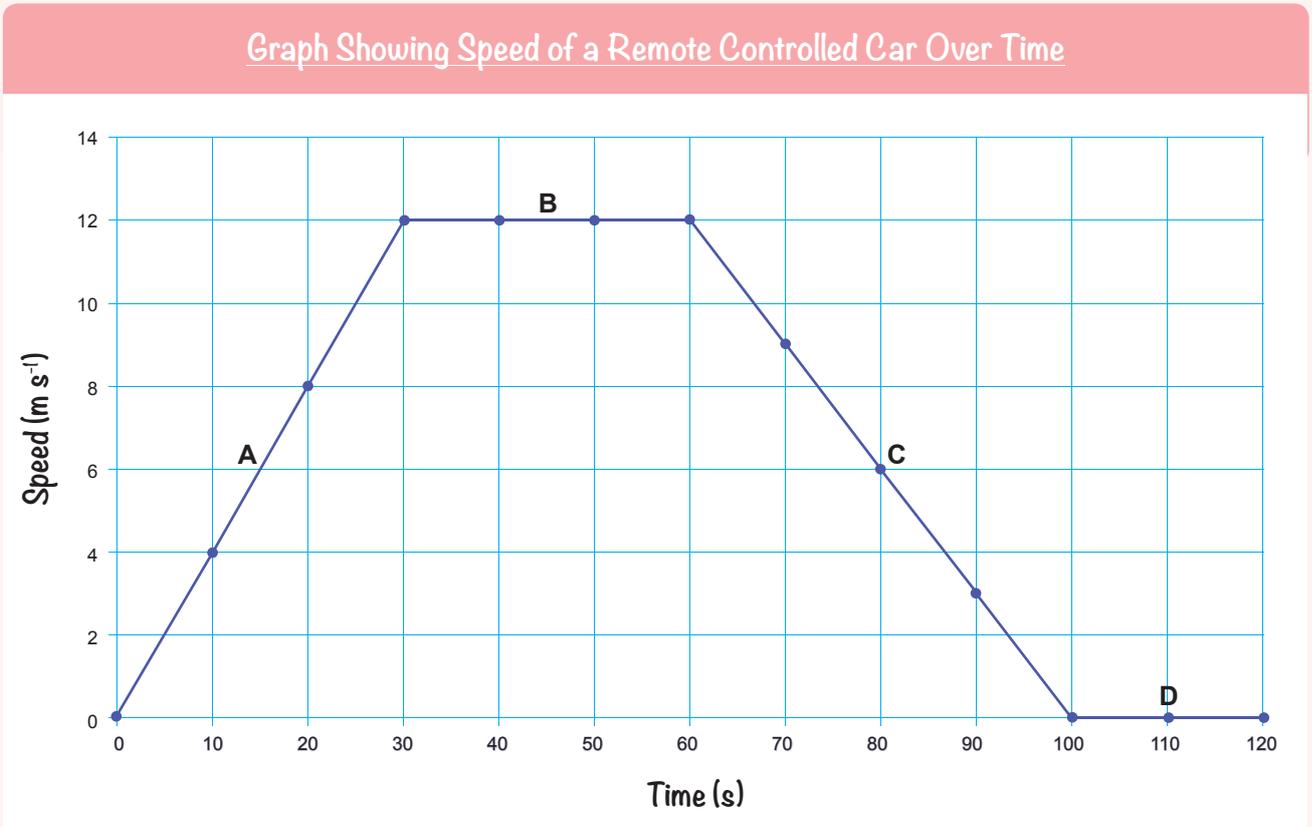


# Thinking Questions



1. Sarah has a remote controlled toy car that she plays with in her parents' garden. The car has a top speed of  $12 \text{ m s}^{-1}$ . Sarah graphs her car's speed for her Science class and this graph is shown below.



Explain the forces acting on the car at each stage (A-D) of its journey. Make sure you include the following in your answer:

- On the picture of the car add labelled arrows to show the 4 forces acting on it.
- Describe the motion of the toy car at each stage (A-D).
- Describe the forces as balanced or unbalanced at each stage (A-D).
- Describe the relative size of the forces at each stage (A-D), e.g. thrust is less than friction.
- Calculate how much the speed changes by at each stage (A-D).





