

# KS1 Vehicles, Wheels and Axles

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Draft

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# Overview

In this document

The following sequence illustrates how children can design and make simple vehicles.

Key features of the activity are the structured way in which children can assemble materials and components such that they experience success early in the activity

# Vehicles, wheels and axles

- Children can begin the activity by looking at and exploring model vehicles or toys. They should be encouraged to investigate the arrangements for wheels and axles, to think about the type of vehicle they would like to make, and the particular features that their vehicle should have.

# Vehicles, wheels and axles

- The teacher and children should work through the assembly of the basic vehicle.
- Once their basic vehicle is complete, the children can decide how to extend or modify it based on their ideas for their chosen vehicle.
- During the designing and making activities, children should be encouraged to talk about their work. Teachers should use questions to prompt and challenge children to encourage their thoughts to develop.

# Vehicles, wheels and axles

- Once their vehicles have been made, children should draw their finished work and where possible describe any significant features.



By exploring a range of vehicles, children will be able to match the shape and features of particular vehicles with the jobs it is designed to do.













24 HOUR SERVICE





Particular attention should be given to details such as the wheel and axle arrangements, which children will have to make provision for in their designing and making.

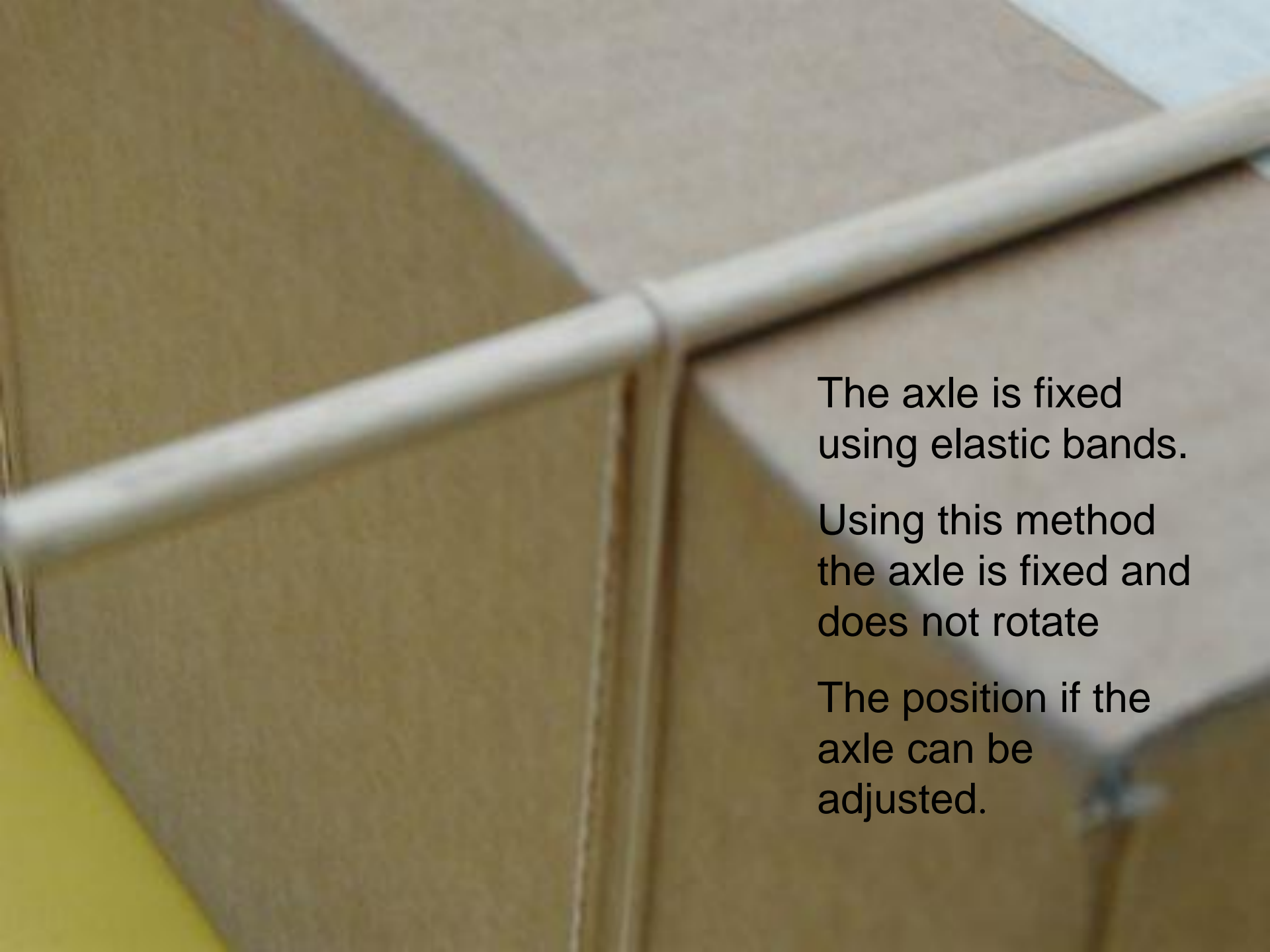


Card box used as a vehicle chassis or frame. Any accurate and 'square' shaped object can be used.



The length of the axle is gauged by adding the combined width of the box, wheels and fixing washers.

5mm dowel should be used for the axle.



The axle is fixed using elastic bands.

Using this method the axle is fixed and does not rotate

The position of the axle can be adjusted.





- Basic vehicle assembled. Children can now adapt and develop their models into their chosen design.

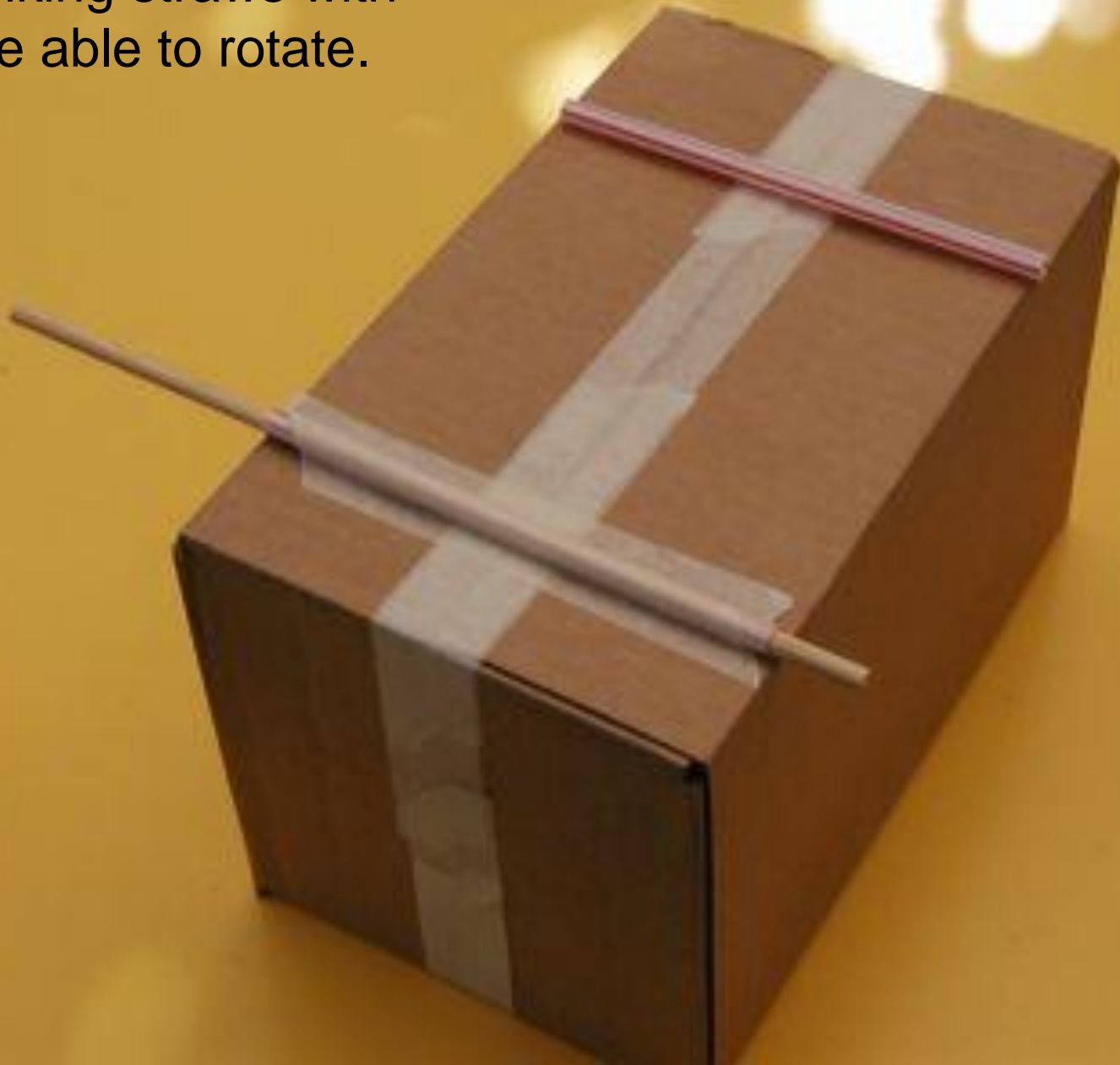


Underside of basic vehicle



Large plastic drinking straws can be used as 'bearing tubes' inside which the dowel axle can rotate.

Detail showing  
drinking straws with  
axle able to rotate.



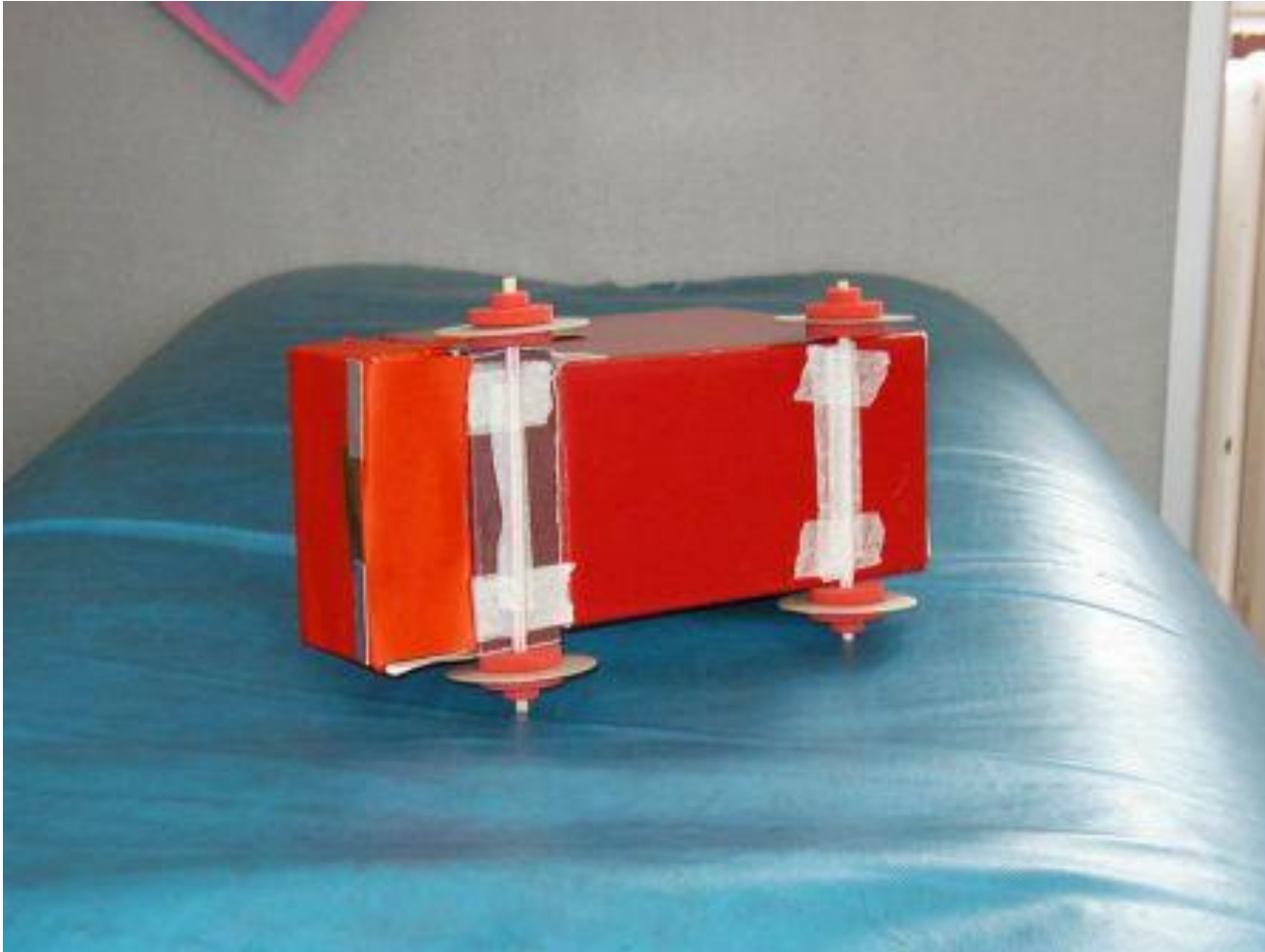
Foam washers  
are used to  
secure card  
wheels onto the  
axle.





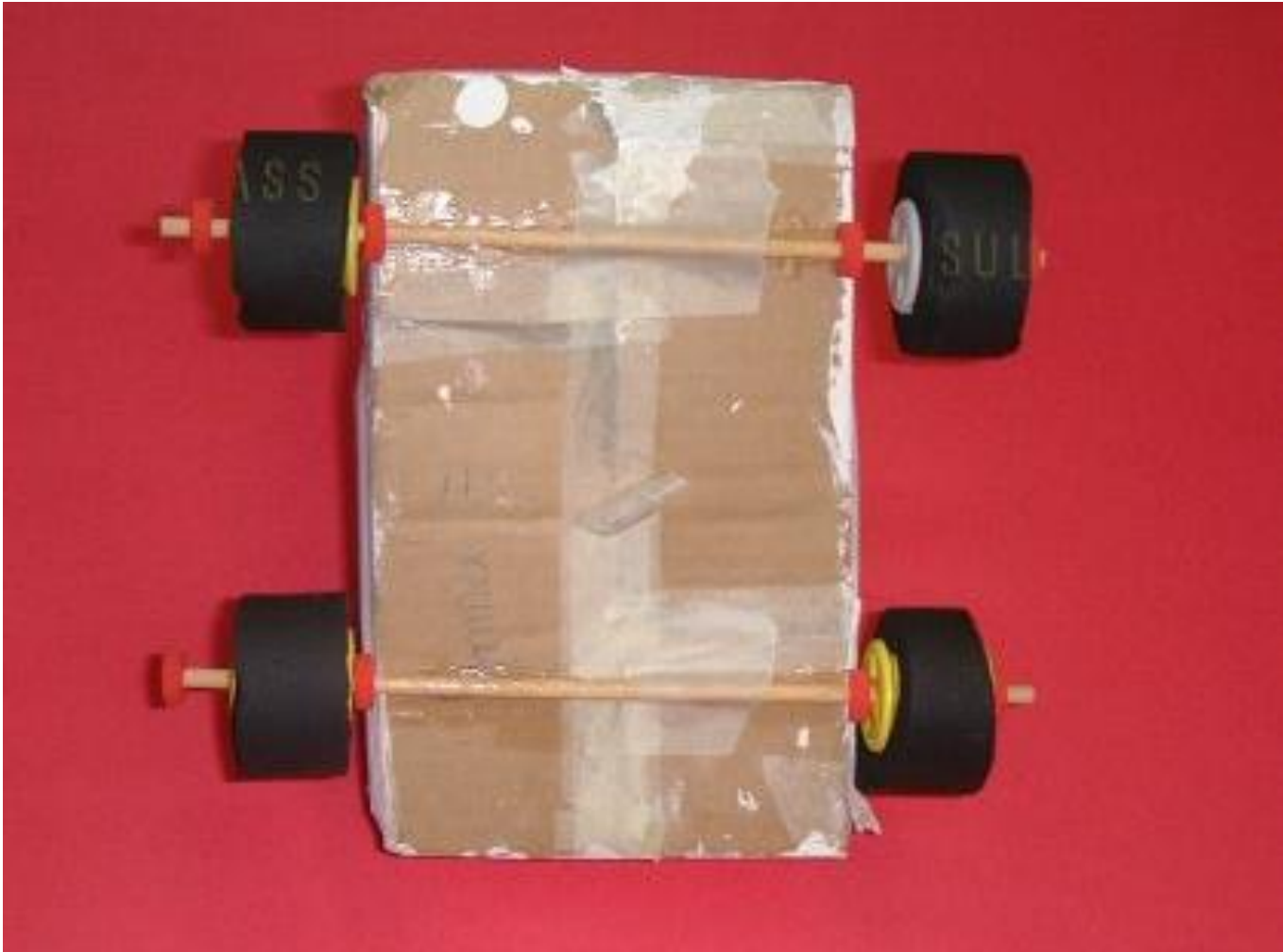
Completed basic vehicle with rotating axle and card wheels.





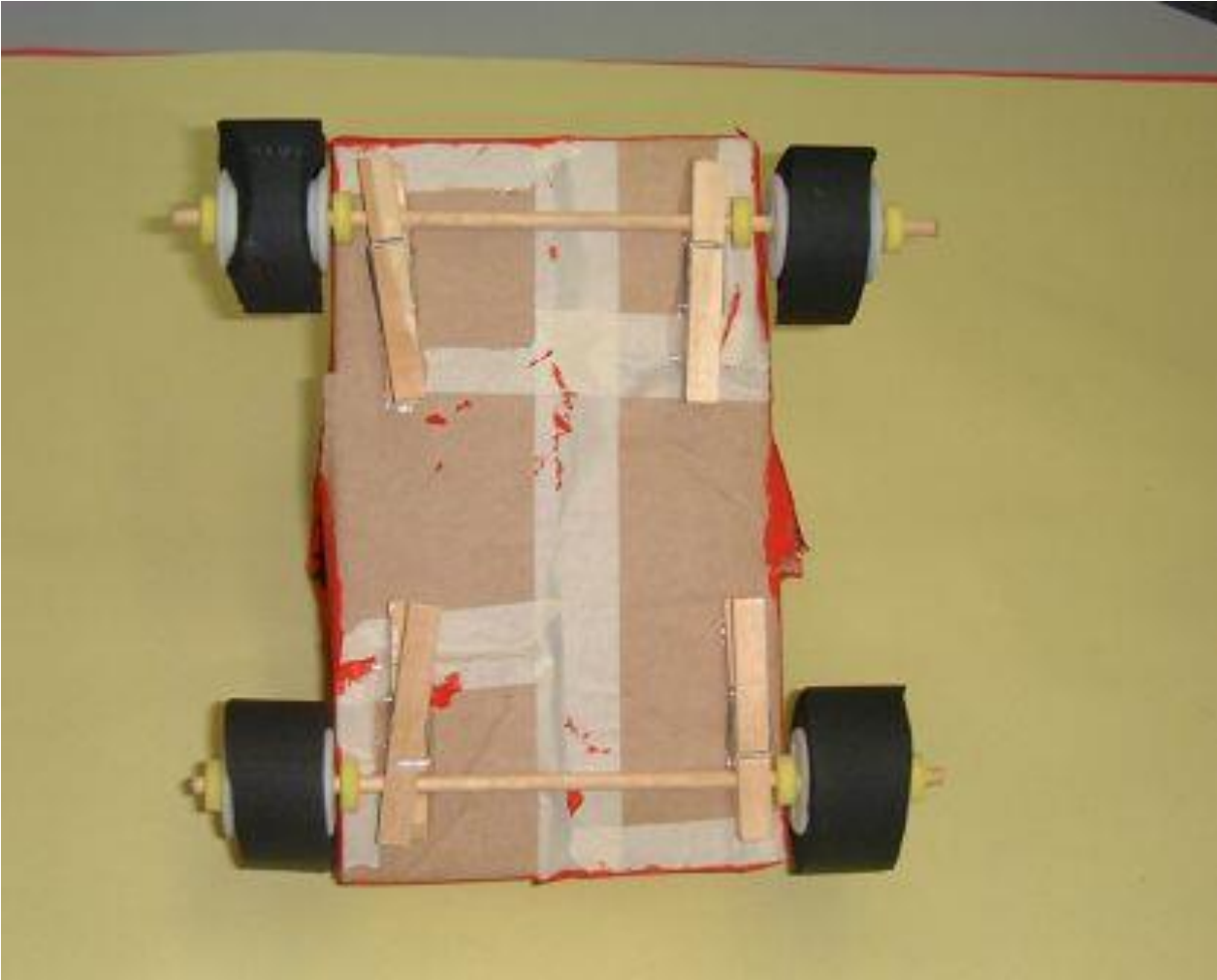






















# Key Stage 1 Vehicles

- This presentation has been produced to help teachers to develop their knowledge and understanding and to be used with children during this unit of work.
- Any comments or suggestions for its improvement will be gratefully received.
- Any photographs of children's work produced from this unit would be appreciated in order for them to be added to this presentation. The more examples the better.
- Please contact [sarah.pook2@hants.gov.uk](mailto:sarah.pook2@hants.gov.uk)

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