

# Wooden Toys: A Rocking Motorbike

Look at the photographs of the wooden motorbike.

All parts of the motorbike are made from pine that has been glued and screwed together. All the screw heads are set in counterbores and the holes are plugged with wooden plugs.

To answer the following questions, you may need to research cutting, shaping, joining and finishing processes using the KS3 Multimedia Design and Technology Education software.

## Exercises

Working on plain paper, use notes and sketches to:

- 1) Describe a counterbore.
- 2) Describe how a counterbore and a wooden plug may be used to hide screw heads.
- 3) Describe how a wood plug that fits into the counterbore may be made.
- 4) Describe how the top of the plug may be made "flush" with the surrounding timber.
- 5) Describe how the motorbike wheels could be made.
- 6) Describe how the motorbike forks could be made.
- 7) Describe how the main body of the motorbike could be made.
- 8) Describe how the motorbike could be firmly fixed to the base.
- 9) Describe a tool that could be used to cut the curved rockers.
- 10) Name a machine tool that could be used to produce a rounded edge on the rockers.
- 11) Describe how the components could be given a smooth finish.
- 12) Name a suitable adhesive that may be used to permanently fix the parts together.
- 13) Name a suitable "finish" for the motorbike.
- 14) Describe risks that children may face by using the motorbike and how these risks could be minimised.
- 15) Explain why it is useful to know where the centre of gravity of the motorbike will be.
- 16) Explain why it is useful to know where the centre of gravity of the motorcycle and the rider will be.



*When you have finished, assemble your answer sheets into a folder, with this question paper at the front.*