

# Strip Vehicle Chassis

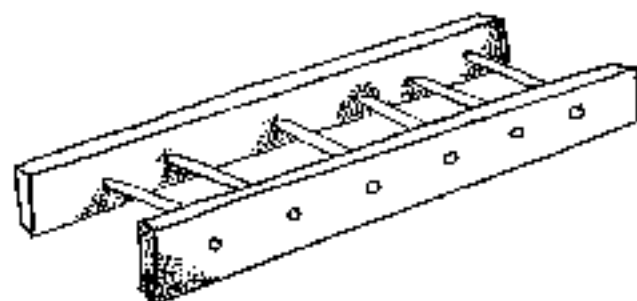
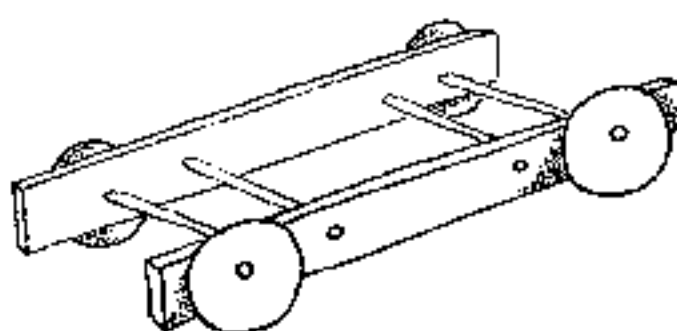
## Technique used:

Strip and dowel construction

## Equipment needed:

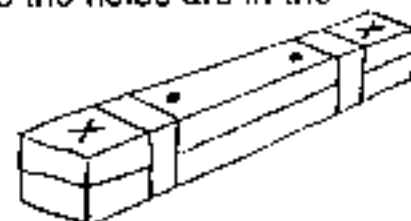
strip wood  
wheels  
4mm drill bit  
narrow round file  
bench hook

5mm dowel  
drill  
6mm drill bit  
junior hacksaw



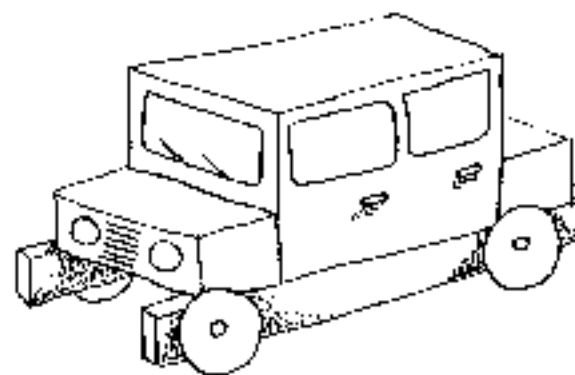
## How to make the example:

- Step 1. Photocopy the sheet opposite, one per child.
- Step 2. Using the junior hacksaw and bench hook, cut 2 pieces of strip wood which are equal in length to the sides of the chassis on the sheet - 18cms.
- Step 3. Fasten the two pieces together using masking tape or elastic bands so that both pieces can be drilled at the same time to ensure the holes are in the same places on both pieces of wood.
- Step 4. Mark 2 crosses two and a half cms from the end of the top piece of strip wood as in the diagram.
- Step 5. Mark 2 black dots 5cms from the end of the top piece of strip wood as in the diagram.
- Step 6. Drill through the centre of the two black crosses with the 6mm drill bit. This will make a loose fit hole to enable the dowel for the axle to move freely.
- Step 7. Drill through the centre of the 2 black dots with the 4mm drill bit to ensure a tight fit for the cross fittings on the chassis.
- Step 8. Before taking off the masking tape or elastic bands, mark one end of both pieces of wood with small arrows facing each other. This will ensure the correct positioning of the sides of the chassis when fastened with the dowel.
- Step 9. Remove the masking tape or elastic bands and separate the two pieces of strip wood.
- Step 10. Cut 2 pieces of dowel 9cms long and two pieces of dowel 12 cms long.
- Step 11. Place the 2 pieces of 9cms long dowel through the tight fit holes marked 'A' and 'B' on the diagram. This will make a rigid chassis structure and requires no glueing.
- Step 12. Push the 2 pieces of 12cms dowel through the loose fit holes marked 'C' and 'D' in the diagram to create the axles. If the axles are not completely free moving then smooth or enlarge the drilled holes by using the round file.
- Step 13. Push the wheels onto the ends of the axles. They must be a tight fit.
- Step 14. Test the vehicle.



## How the idea may be developed.

This is an ideal construction for creating a variety of vehicle bases. The pupils can create the body for the vehicle by using a net or reclaimed materials. Many interesting models can be made in this way. Experiment with a catapult or perhaps a battering ram.



The dimensions written on this diagram are accurate. However, the width of the strip wood used for the chassis sides may vary between 5mm and 10mm depending on the supplier. This will not affect the workings of your model in any way.

