### Model Sheets

# 'Chuffing Charlie'

(An early twentieth century steam locomotive)

## What you will need:

thin cardboard (large cereal packets are ideal) 3 skewers 3 straws scissors sharp blade (or craft knife) ... adult supervision required! glue stick and PVA glue coloured textas or pencils paper clips, pegs, rubber bands, blutak and small bulldog clips for clamping and holding parts in position hole punch

## How to make 'Chuffing Charlie':

- 1. Take the 'plans' of the engine (already photocopied) and glue them to sheets of cardboard, using a glue stick.
- 2. When dry, cut out the shapes very carefully with a pair of scissors or a blade (adult supervision required for a blade).
- 3. Colour the parts before assembling them. Use contrasting colours for the boiler and side water tanks (one colour such as red) and the cab and piston chambers (another colour such as green) as shown in the model. The smokestack, light housing, and steam domes on top should be black, and the underside of the engine black. Use spirit markers or pencils, because paint will tend to crinkle the paper and cause it to lift from the cardboard.
- **4.** Gently score (produce a shallow groove) along the dotted lines with a blade. Fold along the dotted lines and glue the tabs with PVA. Clamp with clips or rubber bands until dry.
- 5. Assemble all the parts, using the fully made up engine as a model.



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- **6.** Use a hole punch to form holes in the wheels (just large enough to fit a skewer into tightly).
- 7. Punch slightly larger holes in the engine body (large enough to fit straws).
- 8. Cut the straws to length (about 6cm) and push through the holes in the engine body.
- 9. Cut the skewers to length (about 7cm).
- **10.** Push each wheel onto the end of a skewer (about 2-3mm). Place a dob of PVA glue on the inside to hold it in place. Push through the straw and glue the wheel to the other side.
- **Suggestion:** Cylindrical parts such as the boiler, chimney etc can be gently folded around a cylinder of similar size and held with rubber bands for gluing. This will prevent creasing.







































