

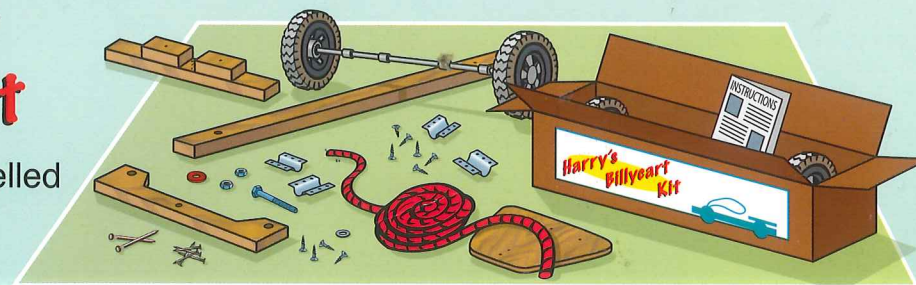
BILLYCART KIT

Ever wanted to make your own billycart? If you buy *Harry's Billycart Kit* you will be able to make one and have endless fun playing with it.

and look at the pieces to get some idea of what you are about to make.

Before you start

Lay out all the carefully labelled pieces of the kit on the ground. Read through the instructions



Getting started

1 Start with the largest piece of timber that is labelled **frame**. The hole in it is for the steering section. This will be the front of your billycart.

2 Pick up the next piece of timber, labelled **rear bar**. This goes on at the back of the frame. Attach it underneath. Make sure that it is at 90° to the frame. Slot the back of the frame into the gap between the two raised blocks of wood on the rear bar. Hammer in two 100 mm nails to join the frame to the centre of the rear bar.

3 Find the **seat** and secure it to the top of the rear bar and the frame. Make sure that the wide section of the seat is sitting on the rear bar. Nail the seat on using five 75 mm nails. Put one nail through the wide section into each raised block on the rear bar, one nail into the back of the frame, and two nails at the front of the seat. This will make your billycart strong and rigid.

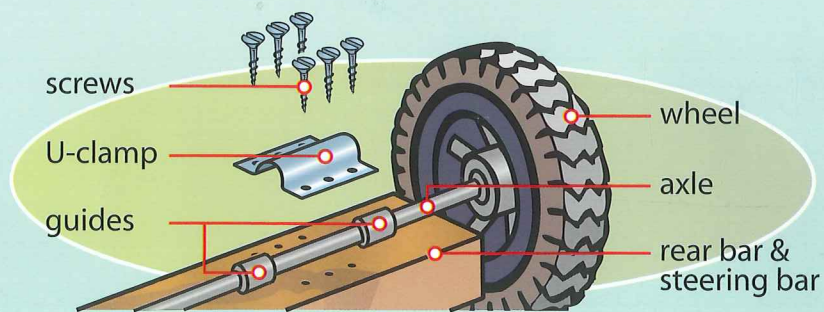
4 Find the part labelled **steering bar**, which has 3 holes in it. Take the **thin plastic disk**, a **bolt**, two **nuts** and a **washer**. Put the bolt up through the centre hole

of the steering bar. When the bolt pops through to the other side, slot the plastic disk onto this end of it.

5 Attach the whole steering section under the front of the frame. Push the bolt up through the frame and put a washer on the part of the bolt that pops through. Use a spanner and a nut to fix the two pieces together. Do not tighten it too much, because this part needs to be free enough so you can steer.

Use the other nut you have as a "lock nut", so the first nut does not come undone. This is done by holding the first nut, then tightening the second nut onto it.

6 Turn your billycart upside down. Take one set of **pram wheels** and one of the packets of **U-clamps** and **screws**. Centre the axle over the underside of the rear bar and secure it with the U-clamps. The clamps should be positioned between the guides. Make sure the screws are tightened firmly.



7 Fix the other pair of pram wheels to the underside of the steering bar. This is done in the exact same way as step 6. Use the remaining packet of clamps and screws.

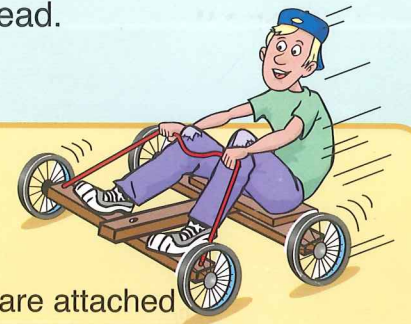
8 Turn your billycart upright again. Find the **rope** and tie one end to the right hole on the steering bar.

Sit on your billycart with your feet on the steering bar. Determine the right length of your rope. You should be able to grip it in your hands while

sitting back on the seat with your feet on the steering.

Tie off the other end into the left hole in the steering bar. If your feet don't reach the steering bar, you will need to hammer another piece of wood on the frame to rest your feet.

Now you have the basics of a billycart and can **start having fun!** You may like to paint and decorate your cart. Just remember to use it safely and don't drive it on the road — find a nice park instead.



Questions

- The instructions should be read through
 - to look for any errors.
 - to lay out all the pieces.
 - to get some idea of what you are making.
- The rear bar is joined to the frame using
 - nails.
 - glue.
 - a bolt.
- When the seat is nailed on
 - you need glue.
 - it makes the billycart strong and rigid.
 - you can steer the billycart.
- The wheels are attached to the billycart
 - using nails and glue.
 - using a bolt and nut.
 - using clamps and screws.
- The nut on the steering doesn't come loose because
 - it has a lock nut secured to it.
 - it is done up very tightly.
 - it has been glued.
- If this billycart was made it could be dangerous because
 - you cannot steer it.
 - it has no brakes.
 - it is not strong.

Vocabulary

Match the words from the text to the clues.
The brackets show the text sections ().

determine frame timber spanner wheels

- 7 Wood used to build things (1)
- 8 Supporting structure of the billycart (2)
- 9 A tool used to grip and turn a nut (5)
- 10 These allow the billycart to roll (6)
- 11 To figure something out (8)

Alphabetical Order

The following words appear in the text.
When placed in alphabetical order, which one would be **first**?

- 12 rope, rear, right, raised
- 13 bolt, billycart, by, back
- 14 wanted, wood, wheel, will
- 15 side, slot, second, some

Back To The Text...

- 16 The purpose of this text is
a to instruct. b to recount.
- 17 In which part of the library would you find this text?
a fiction b non-fiction
- 18 What safety message does the writer give?
a Hold on tight.
b Don't drive a billycart on the road.

Sequencing

Look back through the card to find what you should do first. Choose **a** or **b**.

- 19 a Attach the seat.
b Secure the seat by nailing.
- 20 a Tie the rope on.
b Attach the pram wheels.

Think About This

- 21 The illustration on page 3 shows
a the billycart kit and box.
b the completed billycart.
- 22 Using the illustration on page 2 decide what goes on the rear bar first.
a the screws b the U-clamp
- 23 Look at the illustration on the front of the card. How are the main parts of the billycart identified?
a The name and image is printed in the large yellow box.
b The name is printed in an individual small white box.

Challenge Option

Design: Draw a logo for a new brand of billycarts.

