

# Making Waste Wonderful

## Steel Recycling

### A learner's guide



**Helping schools and communities reduce waste**

## Steel Information

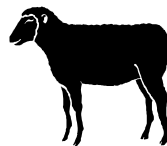
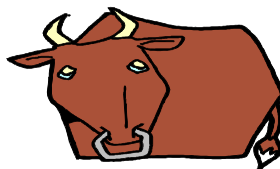
Steel is mostly made from iron ore that is found in rocks and sands. Five percent of the earth's crust is made up of iron. Early man discovered the great strength of iron and since the Iron Age it has been important for making weapons instruments and tools. Melting the naturally occurring iron ore at high temperatures, and then then mixing it with coal and lime makes steel. The steel that is produced can be rolled very thinly or curved to make all sorts of shapes

Recycled scrap metal can also be melted to make iron to produce more steel.

Iron is essential for all living organisms and is found in many plants such as spinach, silver beet and in meat such as beef or lamb.

### Directions:

Circle the pictures below where you would **find** iron then answer the question.



What is mixed with iron to make steel? \_\_\_\_\_

## Steel Information

Steel was one of the first metals to be recycled and almost anything from cars, washing machines, and tin food cans, can be recycled.

Each year, New Zealanders use more than **400 million** steel cans. The average family uses **six steel cans** each week. We recycle less than half of these.

Steel is one of the easiest materials to recycle and is easy to recognize as it has magnetic qualities. (it is attracted to a magnet)

Steel can be recycled back into steel cans or other types of steel products.

The diagram on the next page shows the endless lifecycle of a steel can.

**Directions: Using the information above answer the following questions:**

1. How many steel cans does New Zealand use a year? \_\_\_\_\_

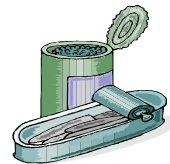
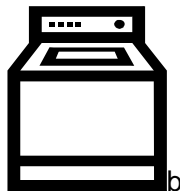
2. If the average family uses 6 cans a week:

- How many cans would they have used in 8 weeks? \_\_\_\_\_
- How many cans would they have used in a year?  
(Clue there are 52 weeks in a year) \_\_\_\_\_

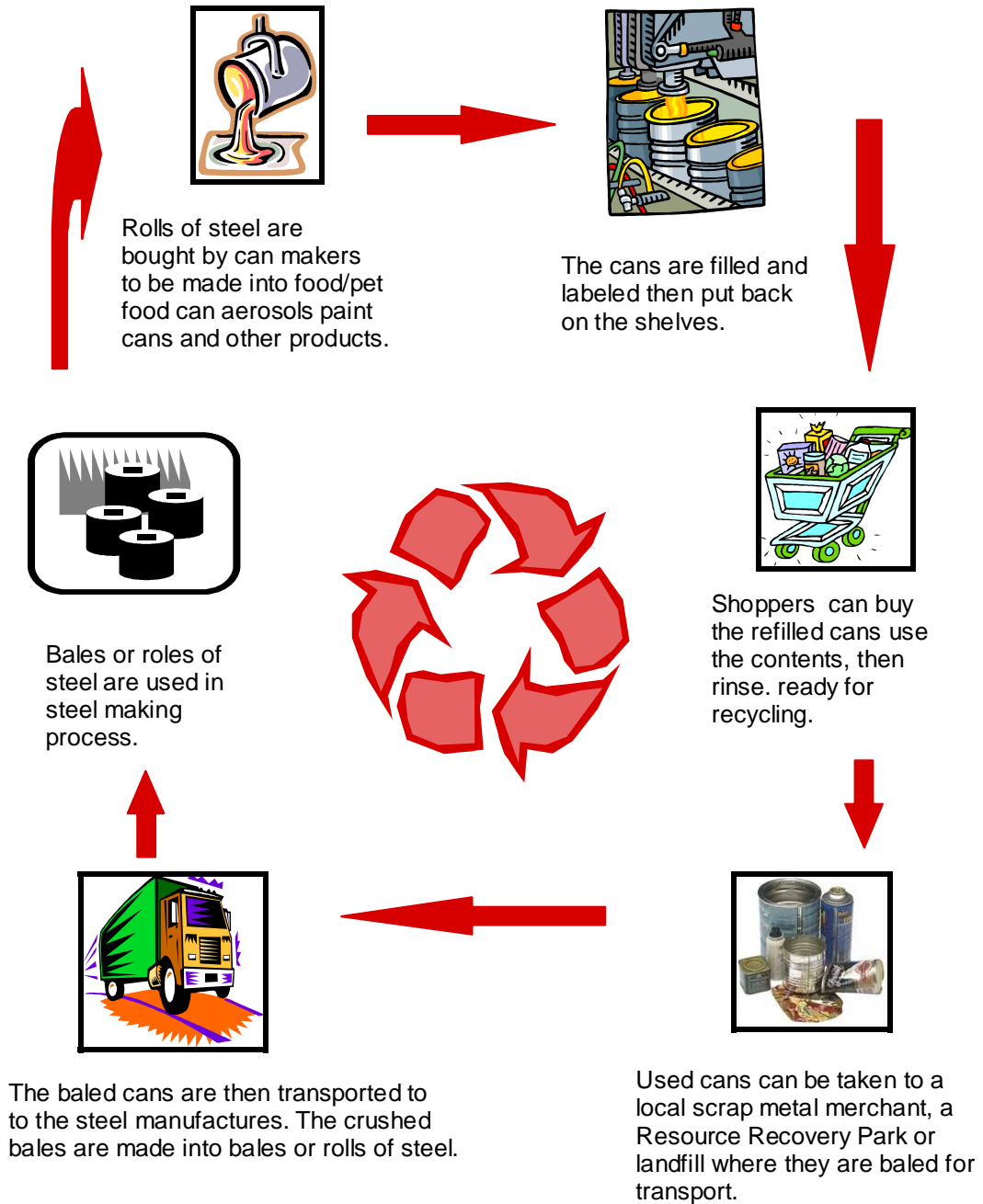
3. Name three different items made from steel? \_\_\_\_\_

\_\_\_\_\_

4. What can you use to find out if a can is made from steel? \_\_\_\_\_



## The life cycle of a recycled steel can



**Directions:** Look at the diagram about the life cycle of a recycled can. Fill in the blanks about the life of a piece of steel

Hello I am a steel can sitting on \_\_\_\_\_

I am filled with \_\_\_\_\_ I am now empty and need to be \_\_\_\_\_

ready to go to the \_\_\_\_\_ where I get transported to the \_\_\_\_\_

At the factory I am \_\_\_\_\_ and made into \_\_\_\_\_

I am now being bought by \_\_\_\_\_

to be made into \_\_\_\_\_ Now I am ready to be \_\_\_\_\_

\_\_\_\_\_ and put back onto the \_\_\_\_\_

ready to be sold again.

## Steel Information

### More Steel Facts

Did you know that steel cans are sometimes called tin cans as they have a thin protective coating of tin on the inside to prevent them from rusting. Steel cans are safe for the long-term storage of food, pet food, chemicals and paint etc

### How do I recycle steel?

**Cans:** Steel cans are 100% recyclable. When you have emptied the can make sure you rinse it out well. Put the lid inside then squash the open end together.

**Where can I take my cans for recycling:** To you're nearest Landfill or Transfer Station. Check with your local scrap merchant he may take them too. If you have a kerbside collection then put them into your plastic shopping bag ready for collection.

**Other Steel items** you may recycle include washing machines, fridges, bikes, roofing iron, and old car bodies.

**Directions:** Read the steel information box. Decide which is a **fact** and which is an **opinion** in statements 1-6 below by placing an **X** in the correct box. Write your own fact or opinion.



1. Everyone should recycle steel cans.

Fact  Opinion

2. Cans are 100% recyclable.

Fact  Opinion

3. Cans should be emptied, rinsed and squashed for recycling.

Fact  Opinion

4. Recycling takes up too much of everyone's time.

Fact  Opinion

5. Steel items can be recycled at the landfill or transfer station.

Fact  Opinion

6. Recycling steel is too hard.

Fact  Opinion

Write your own opinion or fact here