

Design a wheelbarrow

Be part of a story

In this lesson, you will play an important part in a story. The story is about three people:

- Mrs April, who grows vegetables and then sells them at a street market,
- you, and
- Mr Sethole, a carpenter. He works mainly with wood, but can also work with metal sheets.

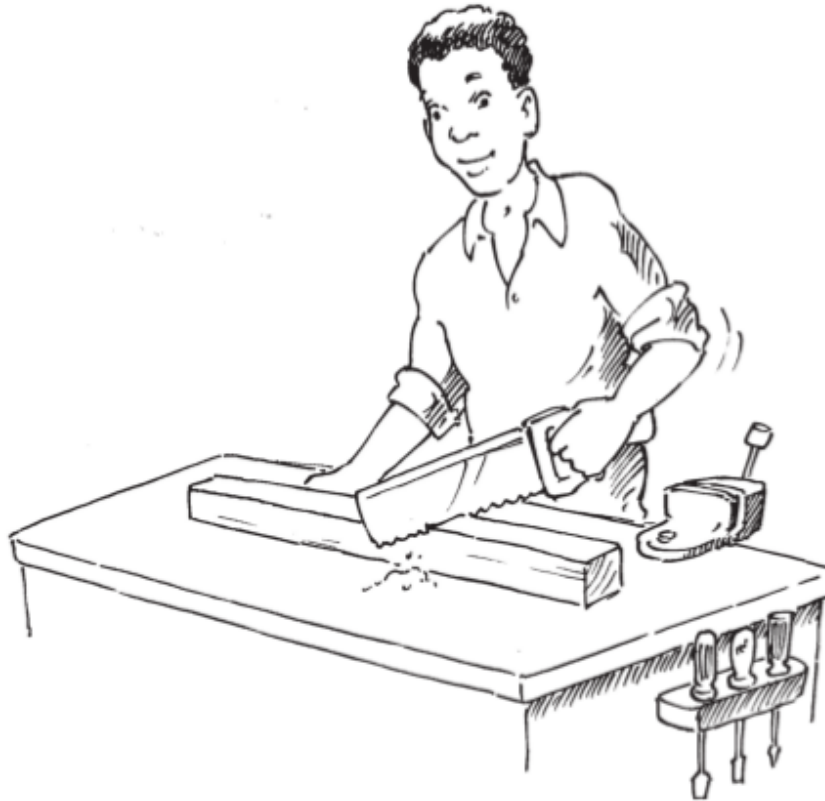


Figure 12: A carpenter is a kind of technologist, and makes things out of wood.

Mrs April needs a wheelbarrow to take her vegetables to the street market. She doesn't like the wheelbarrows in the shops. She asks you to go to Mr Sethole and ask him to make a wheelbarrow for her.

You take the message to Mr Sethole and he says to you: "You will have to give me more information so that I can know how to make the wheelbarrow. Wheelbarrows are used for different purposes and they can be of different sizes and shapes. Please ask Mrs April some questions and then come back to me with more information."

Almost any technology project starts with the gathering of information. Without good information, it is not clear what has to be done. This part of the design process is called investigation.

A wheelbarrow that Mrs April can buy in the shop looks like the one in Figure 13. She says this wheelbarrow will not work well for her vegetables.

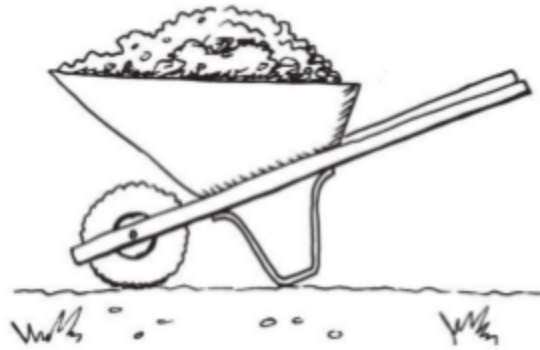


Figure 13

1. Write down some questions that you can ask Mrs April.
2. Try to think what answers Mrs April might give to your questions. Then write a short note below explaining what she wants to do with the wheelbarrow, and what the wheelbarrow should look like.
3. Mrs April wants to put vegetables next to each other, rather than on top of each other. How should her wheelbarrow differ from the wheelbarrow you can buy in a shop? You are designing a wheelbarrow for Mrs April, not for somebody else. So you should consider what she will use it for.

Mrs April has an old wheelbarrow frame without a top. Mr Sethole says he can make a new top and fix it to the old wheelbarrow frame.

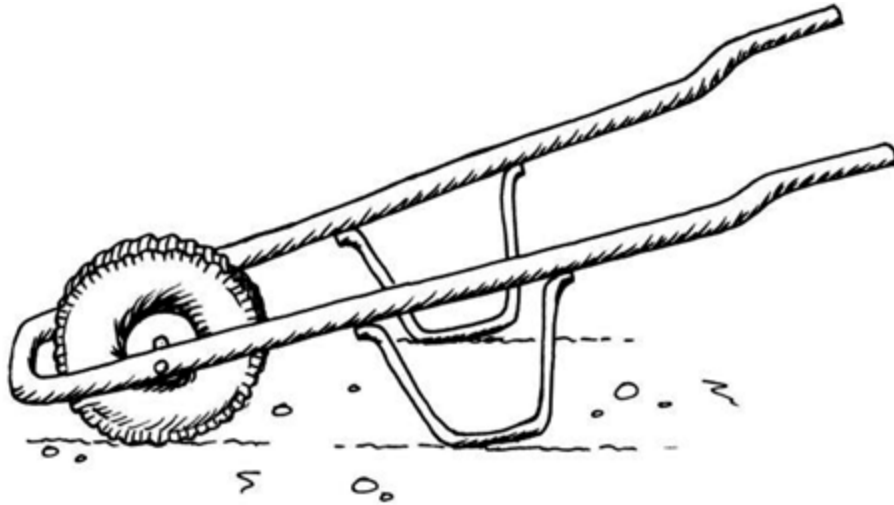
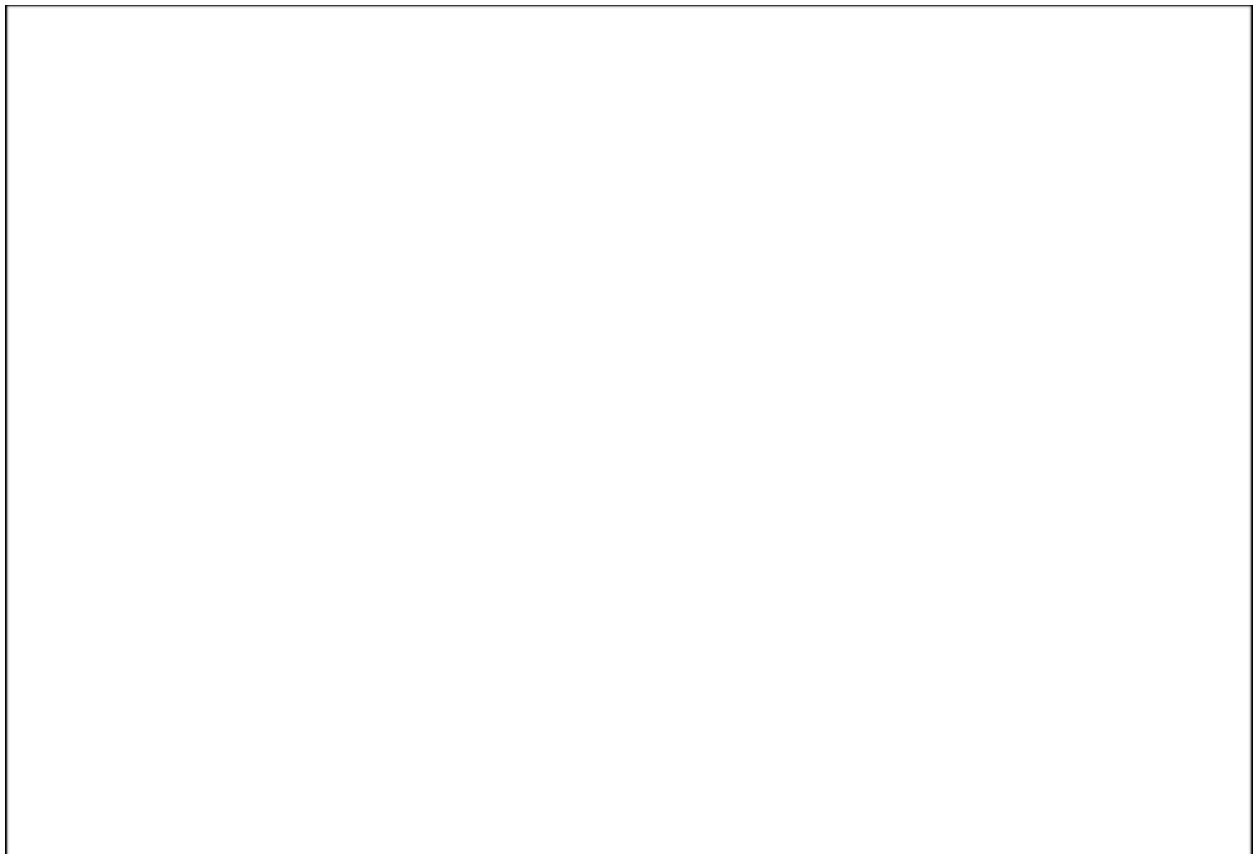


Figure 14

4. Make a sketch below to show what you think the new top should look like.



5. Which materials can be used to make the wheelbarrow's top? Describe the options and say which one you prefer. Also explain why you prefer this material.