

Choosing timber

What students will learn

When they have finished this session, students should be able to:

- Identify the types of timber available
- Understand the good and bad things about different timbers
- Choose suitable timber for a job.

Things you need before you start

Information

Find out:

- What timbers are easily available in the area where these students live.
- Where does the timber come from?
- In what sizes and grades? What do they cost?
- What are they commonly used for?

Materials

Get samples of locally available timbers for students to study

Tools or equipment

None

Course resources

Course video. Video player.

Introduction

Talk to the students briefly about the main things they will learn and what they will do in this session:

- where timber comes from and how it is produced
- the types of timber available
- the different properties (good and bad things) of timbers
- choosing timber.

Check they have their workbooks.

Where does timber come from ?

Talk about

Where timber grows

- Locally: places; types of forest; trees; how long they take to grow; sawmills
- Overseas: countries; types of forest; types of trees; mills; transport to here
- Where timber is sold here.

How a tree grows

The workbooks have pictures to help show these things:

- growth rings
- branches and knots.

Processing timber

- milling and sawing
- drying
- storage
- treating timber.

Show

Video: the beginning of the video shows some background material on forestry, trees and milling.

Ask students to

- look at pictures in their workbooks (tree growth, rings, sawmilling diagrams)
- ask questions about anything they do not understand.

Student activity

This activity is in the workbook

Students work together and answer questions in their workbooks. They :

- count growth rings on a picture to find the age of a tree
- identify a knot in a timber sample and say what caused it.

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Check student's activity work and give feedback on how they have done.

The types of timber available

Talk about

the timber that is used locally

include:

- art and craft work
- traditional/customary construction (buildings, boats)
- new/western style construction
- plywood and boards
- where each type comes from

Show

examples of locally available timber.

Ask students to

study and identify (name) the examples.

Student activity

This activity is in the workbook.

Students talk with others about what timbers they know — and what they are used for.

They answer activity questions (what is this timber? where does it come from?)

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Check students' activity work and give feedback on how they have done.

The properties of timber

Talk about

Good and bad things about different timbers (properties)

The workbook has pictures to help the students.

Explain how timbers can be:

- heavy or light
- strong or weak
- hard or soft and easy/difficult to work

and that some timbers:

- split and warp easily
- wear and weather well
- resist rot and insects (include treated timber)
- look good

Costs

Explain how timber is priced locally — for example, \$'s per metre, per board ft.

Give the actual price of some local examples.

Show

- Local examples of timber
- Pictures and descriptions in the workbooks.

Ask students to

Look at samples and do the activity.

Student activity

This activity is in the workbook.

You will need to give the students about five or six examples of different timbers that are available locally.

Students examine each of the timber samples. They name three key properties each has.

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Choosing timber

Talk about

Suitable types of timber for a job

Compare the properties of different timbers with the properties that are needed for a number of jobs. Suggest:

- carving
- building a boat
- framing for a house
- other local uses

Talk through each one. Ask students what properties they think might be important for each. They can make notes in their workbooks.

Sizes

Explain that sawn timber is usually available in standard sizes.

These are commonly 50mm x 50mm, 100 x 50, 150 x 50, 100 x 100, 150x 100

— but check what is available locally.

Grades and finish

Explain that some timber is available **rough-sawn** (as it came from the saw-mill) or planed down smooth (**dressed** or **planer gauged**). Check what is available locally.

Explain that timber may be available in different grades or qualities. Lower grades will have more faults and knots.

Select pieces of good timber.

Show some of the typical defects in pieces of timber to avoid

splits, cracks, knots, bows, warps

There are pictures of some defects in the workbooks.

Show

Samples of poor timber. Talk with students about what is wrong with them.

Cost and availability

Explain that the cost of each type of timber — and the availability of a particular type in enough quantity may affect what timber you choose.

Student activity

This activity is in the workbook

Students choose types of timber they would use for:

- A set of three steps up to a house door
- The boxing (framing) for laying a concrete slab
- The framing for a wall inside a house

and they explain the main reasons for their choice.

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Check students' activity work and give feedback on how they have done.