

Introduction to blocks

— tutor notes

What students will learn

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

- Identify the types of blocks they can make or buy
- Know some of the good and bad things about different blocks
- Choose the right blocks for a job

Things you need before you start:

Information

Find out:

- What blocks are easily available in the area where these students live?
- Where do the blocks come from?
- In what type and sizes? What do they cost?
- Where does the sand for mortar come from?
- If you make blocks by hand:
 - Where do you get equipment and materials from?
 - What mixtures/proportions are normally used in this area to make blocks?

Materials

Get samples of locally available blocks for students to study.

Tools or equipment

None

Course resources

Course video. Video player.

Introduce the module

Talk about

The contents of this course on working with blocks.

Explain that:

In this module, the main things they will learn and find out are:

- The sort of jobs that blocks are used for locally
- Where blocks come from and how they are made — by hand or by machine
- The types and sizes of blocks available

In the next module, *Plan and build with blocks* they will

- Plan a wall or structure,
- See how to fit blocks together and keep them level and,
- Finally, prepare and build a block wall

Check they have their workbooks.

Work through all parts of this section of the *Student Workbook*.

The notes that follow give guidance on points you should emphasise or explain to students.

What is a concrete block?

Talk about

Concrete blocks can be made in all sorts of shapes and sizes.

Talk about the local names you call blocks and mortar

In some countries they are called “bricks”. Their proper name is a “concrete masonry unit”.

In this course, we will call them **blocks**.

Show students a hollow concrete block

Tell them the names for the parts of a block:

Top face, bottom face, sides, cores

Show that the hollow cores are smaller at the top — so the top face of the block has wider edges.

The cores in a wall can be filled with concrete or steel reinforcing rods to make them stronger.

Talk about

Blocks are joined together with a wet paste called **mortar**.

Some places call this paste “cement”.

What are blocks used for?

Ask students what blocks are used for where they live?

Ask them to look at the ideas in their workbook:

(They can be used to: *Make walls, Build houses, Make steps, Support water tanks, Other things you know about*)

Activity

Ask students to talk with others and do the activity in the workbook. They draw or write about things that blocks are used for where they live.

Good things about blocks

Talk about some of the properties that blocks have.

Blocks are:

- Strong, quick to work with, resist rot and insects, last a long time.
- Any others you can think of?

but

- They are heavy and
- They can cost a lot. How much do blocks cost to buy — or make?

Talk about the sort of \$ cost per block — and where students can find the actual prices.

Where do our blocks come from?

Talk about

Where concrete blocks are made in big numbers by a machine.

Show

The video to see a block making machine working in Tarawa, Kiribati.

Talk about

Blocks can be made in moulds by hand.

Students can see how to make blocks by hand later on the video.

Activity

Ask students to do the activity.

They write down where their blocks come from, where they can buy blocks locally — or get them made.

The types of block

Talk about

Concrete blocks can be made in lots of shapes and sizes.

Show

Show students examples of the types and sizes of block you use in your area. If possible, show them full stretchers and half-blocks.

Explain

Sizes

Explain the difference between “nominal” and actual sizes.

Get students to measure your example blocks — and compare the sizes with the information in their workbooks.

Half sizes

Explain how these are used at the end of walls. Half-blocks are very useful. You don't have to cut standard blocks to fit.

Activity

Students describe — or draw the types and sizes of blocks they can buy, or make, where they live.

They find out how much blocks cost.

Steps in building with blocks

Talk about the main steps.

Explain that this is a just an introduction. The sections in the next module will show them how to do each step.