

# Student Checklist

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**has completed the course “Working with Concrete”.**

**I have worked with them through the course and I have seen them complete the exercises and activities I have marked on this checklist.**

Tutor Name .....

Signed .....

## Choosing concrete

For their own area, village or island, the student can:

- Identify the different types of cement and concrete
- Say how cement and concrete are made
- Say where their cement, sand and rock come from
- Choose suitable concrete for a job

## Mix and lay concrete

For each section the student can:

- Identify the basic tools available
- Choose and use the best tools for a job
- Clean tools and equipment after use

## Plan for concrete

- Draw a sketch plan for a job
- Work out how thick the concrete should be
- Say when steel reinforcement is needed
- Decide the type of concrete
- Work out the amounts of cement, sand, rock and water

## Getting a site ready

Prepare the ground

- Mark the place where the concrete will go
- Dig out the ground, make it solid and level

Make the boxing (formwork)

- Build strong timber framing
- Check frames are level and in the right place
- Place any underlay or reinforcing

## Mixing concrete

- Measure out the correct amounts of water, cement, sand and rock
- Correctly mix a batch of concrete by hand
- Correctly mix a batch of concrete in a mixer
- Follow safety precautions

## Pour and compact concrete

- Place concrete batches correctly into the formwork
- Compact concrete to remove all air bubbles
- Screed the concrete to make it level with the formwork

## Finish and cure concrete

Say what type of surface can be made with each of

- screed, wooden float, brush, finishing trowel
- Finish the concrete to the type of surface needed
- Make joints in the concrete where needed
- Follow correct steps to cure the concrete
- Remove formwork from finished concrete

## Introduction to blocks

The student can:

Identify the common types and sizes of blocks available

Say where to get blocks from

Choose the correct blocks for a job

## Build with blocks

The student can:

Say what the steps are in building with blocks

## Design and plan for blocks

Know when expert advice is needed in design of block walls

Say when reinforcing is needed

Say what type and size of foundations are needed

Plan how the blocks will fit together

Work out the amount and cost of blocks needed for a job

Ask for expert help with plans at the right time

## Fit blocks together

Lay dry blocks in different patterns to make a wall

Use spirit level and lines to keep the wall level, even and square

Cut blocks to size

## Lay blocks with mortar

Mix mortar correctly

Pick up and spread mortar with a trowel

Spread mortar to get correct thickness for a joint

Place blocks and level into position

Cut off excess mortar

Finish joint with a jointing tool

## Fill blocks

If required, fill the block cores with concrete