

# HOW TO DIG A TEST PIT

An archaeological test pit is a small 1m by 1m trench dug in a series of layers, or spits, to a depth of approximately 1m. The archaeological materials collected from these layers tell us something about how the site has been used in the past. Test pits can be dug quickly and easily using everyday garden tools, and their small size makes them ideal for investigating built-up areas such as village centres. Digging groups of test pits allows us to say something about the way in which settlement patterns may have changed over time.

This guide provides step-by-step instructions for digging and recording a test pit.

## What you will need

- A 3m or 5m metal tape measure
- A 30m tape measure
- 4 large metal nails or plastic tent pegs
- 4m of string
- A large plastic sheet
- A sharp spade
- A mattock
- A hand shovel
- A pointing/archaeology trowel
- 2 buckets
- A garden sieve with a 1cm mesh
- Several seed trays
- Re-sealable plastic bags
- A permanent marker
- A camera
- A compass
- A clipboard
- Pens, pencils and eraser

## Getting started (Step 1)

Before you start to dig, fill in the front cover of the *Test Pit Recording Booklet*. The following information is required:

- Site code – This is a unique code created to identify your project.
- Test pit number – Each test pit in your project should be numbered and no two test pits should share the same number.
- Test pit location – If the test pit is located in a garden then the address of the property will help locate it. If it is in a public space then the name of an adjacent road or feature will suffice. Alternately, your area of work may be given a name, i.e. Field 1.
- Grid reference – If you have access to a GPS handset then an Ordnance Survey grid reference for the pit can be obtained easily. Likewise, the grid reference can be calculated from an Ordnance Survey map of the area.
- Test pit team names – A list of everyone who has worked on your test pit.
- Date of excavation – The date(s) on which the test pit is being dug.

## Laying out your test pit (Steps 2-3)

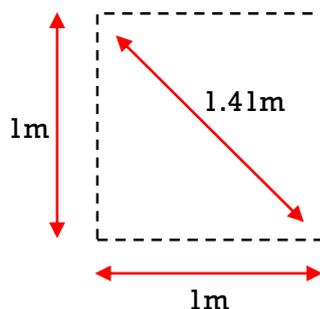
Your test pit should be laid out in a convenient location with plenty of space around it to work in and store the excavated soil. Try to **avoid** placing your test pit near to **drains, foundations or under trees**, as you do not want to cause any damage.

First, mark out your 1m square test pit using string and 4 nails:

- Tie one end of the string to a nail and push it into the ground. Measure 1m along the string, stick a second nail into the ground and wrap the string around it.
- To lay out the right-angled corner of the square, measure another 1m along the string and pull the string tight to roughly the right spot where the third corner should be.
- At the same time, use the tape measure to measure 1.41m diagonally across the square

from the first nail. The point at which 1.41m on the tape measure and 1m on the string cross will be the corner. Mark this with a third nail and wrap the string around it.

- Repeat this process to locate the fourth corner, this time measuring diagonally from the second nail, and then run the string back to the first nail to complete the square.



**TIP:** As long as all four sides of your test pit are 1m long and the diagonal measurements across the pit both measure 1.41m, the corners of your test pit will all be right-angles and the test pit will be square.

Now, lay out the plastic sheet that you are going to use to store all the excavated soil on. This needs to be at least 2m away from the top of the test pit to ensure that the soil does not fall back into the hole and to give you plenty of room to work around the pit.

### Beginning your test pit (Steps 4-6)

You will be digging your test pit in 10cm layers, referred to as 'spits', until you reach a depth of no more than 1m. Each of these 10cm spits will require a separate **Spit Record Form** to be completed in your **Test Pit Recording Booklet**. These begin to be filled in before you start to dig a spit (the left-hand column) and are completed after you have finished digging (the right-hand column).

**BEFORE you begin to dig**, start filling in the first **Spit Record Form** (Page 2). Fill in the four boxes in the top right-hand corner – **Site Code**, **Test Pit Number**, **Spit Recorded By** and **Spit Number**.

Complete recording **sections 1-4** on the **Spit Record Form**:

1. Measure the depth of the top of the spit at the four corners of your test pit. Spit 1 will be 0cm, Spit 2 should be 10cm etc.
2. Draw a neat plan of the surface of the spit in your test pit using the 10cm square gridded box, so that every 1cm on your plan represents 10cm in the test pit (For Spit 1 the plan may just show grass).
3. Try and draw your plan from the south with north at the top – draw an arrow in the box above your plan to show what direction north is in. Make sure all of your subsequent plans are drawn from the same position as the first.
4. Use box 4 to describe what you have drawn and for any other explanatory notes.

In addition, you need to set up a finds trays for each spit before you start digging it. Use a seed tray and place a re-sealable plastic bag in it onto which you have written the **site code**, **test pit number** and **spit number** in permanent pen. All the artefacts from this context will go into the tray in the first instance and into the bag once they have been washed and dried.

### De-turfing your test pit (Step 7)

If your test pit is located in a grassed area then you will need to take the turf off before you can start digging deeper. To do this, use a sharp spade to carefully cut across the surface of the pit to create small squares no more than a spade's width across (approx. 20cm by 20cm). Then push the spade firmly under the grass so that you can lift off a square of turf about 5cm thick. Place the turf to one side and look after it as you will be replacing it once you have finished the pit.

## Digging your test pit (Steps 8-11)

Once you have removed the turf, you will need to start digging out your test pit using the mattock, spade, trowel and hand shovel. The equipment you use will depend on what the soil in your test pit is like. If the soil in your test pit is hard, gently loosen it with the mattock and then shovel the loosened soil out into buckets. **REMEMBER**, you are digging the test pit in a series of 10cm thick spits so do not get carried away! Use the metal tape measure to keep track of how deep you are digging by measuring the corners of the test pit.

As soon as there is enough loosened soil in the bottom of your test pit to get in your way, use the hand shovel to get it out of the pit into a bucket to be sieved. **At all times, keep the bottom of the test pit as level and horizontal as possible.**

**NEVER pull an artefact out of the ground.** Instead, excavate the soil around it and when it is completely exposed gently lift it up and place it in your finds tray.

Tip the contents of each bucket of soil into your sieve a bit at a time (holding the sieve over the plastic sheeting). It is a lot easier to sieve small amounts and you will be able to spot finds more easily. **Take care when lifting buckets of heavy soil.** Sieve all the soil as it is excavated and keep anything and everything that you think might be man-made or interesting for some other reason. **IF IN DOUBT, KEEP IT!!!**

Once all the finds have been taken out of the sieve and placed in the finds tray, tip the residue out onto the plastic sheeting. Put more soil into the sieve and continue.

## Finishing a spit and starting the next one (Steps 12-14)

Once you have reached the bottom of the spit you should stop and complete the *Spit Recording Form* (sections 5-8):

5. Using **Guide 1: Soil Composition** at the front of the *Test Pit Recording Booklet* describe what the soil in the spit is made of.
6. Using **Guide 2: Soil Colour** describe the colour of the soil
7. Using **Guide 3: Percentage of inclusions in the spit** complete section 7
8. List all the finds recovered from this spit.

Finally, check through the **Recording Checklist** (bottom right of the form) to ensure that you have not forgotten anything. Once you are happy that the spit is fully dug and recorded take your **filled finds tray** to the finds processors and start filling out the details on the next *Spit Recording Form*.

Now, it is simply a matter of repeating this process (Steps 4-14, excluding Step 7) until any of the following happens:

- You hit bedrock!
- You hit 'natural' – the term used for layers that have never been disturbed by humans.
- You find a feature that your archaeological supervisor tells you to leave intact and stop digging.
- You reach 1m in depth.
- You run out of time!

Once any of these things above happens, make sure that you finish recording the spit you are working on and move on to Step 15 (below).

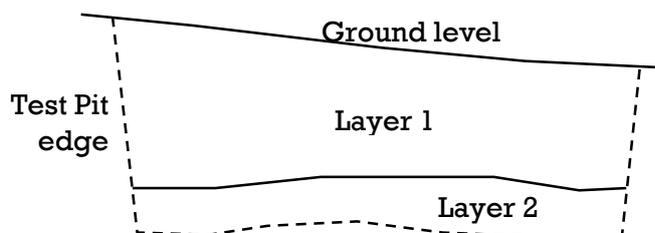
## Recording the last spit (Step 15)

Turn to the *Final Spit Record Form* (Page 13 in the *Test Pit Recording Booklet*). Fill in your test pit details, draw your final plan (of the bottom of the test pit), explain why you have stopped digging

and add any other comments that you think might help the archaeologist writing the final report. Finally, check through the **Recording Checklist** (bottom right of the form) to ensure that you haven't forgotten anything. **REMEMBER** to make sure that your finished test pit has been photographed before it is backfilled.

### Recording your test pit's sections (Step 16)

Next, you need to draw all 4 sections (sides) of your test pit. By doing this you will record any changes in the appearance of the layers you have dug through, and you will also be able to record the position of anything that you have left embedded in the side of the test pit.



Turn to the **Sections Drawing Form** (Page 14). Draw and label what you see on each side of your test pit, with 1cm on the section representing 10cm in your pit.

- The **numbers** on the top corners of each **section drawing** should correspond with the numbers at the corners of your **spit plans**. This will enable anyone in the future to see which section drawing represents which side of the test pit.
- Make sure you draw a line to show the bottom of your test pit (i.e. if your test pit has gone down 70cm, the line showing the bottom will be at 7cm on the section) and cross-hatch the non-excavated area below this.

### Recording your test pit's location (Step 17)

Finally, turn to the last page of the **Test Pit Recording Booklet** (Page 15) and fill out the **Test Pit Location Map** so that anyone reading the results of your test pit will know exactly where it was dug.

- Show where the test-pit is in relation to features such as houses, boundaries, roads, walls etc. These need to be features that can be found on an Ordnance Survey map.
- Include lines showing the exact distances from the test-pit to permanently identifiable points such as buildings or field corners.
- Draw your test pit as a square with the corners numbered 1-4, to correlate with the numbers on each spit plan and the section drawings.
- Draw an arrow showing the direction of North on your map.
- **REMEMBER**, your plan needs to be understandable to someone who doesn't know the site.

### Finishing your test pit and backfilling (Steps 18-20)

Once you have finished digging and recording your pit you can fill it back in again using the spoil from the plastic sheet. Place large stones and the like into the pit first and then shovel the soil back in on top of it. Keep stamping the soil down as you fill in the pit and replace the turf if you removed any. You may find that there is a little bit of a mound left where your test pit was at the end. This is normal and it will go as the soil settles over the coming weeks.

Finally, tidy up the area around your test pit, clean and return any borrowed equipment, all of your finds and the completed **Test Pit Recording Booklet** to the excavation base.

## Health and Safety Advice

### Safe digging practices

In order to dig safely, please follow these simple rules:

- Work carefully and use **COMMON SENSE!**
- Wear suitable clothing (ie. Work gloves and sturdy footwear). **DO NOT** wear sandals or flip-flops if you are digging, particularly if you are using a mattock or shovel. If you are not used to digging you may get blisters, so wear gloves. The ground can also contain sharp stone, flints, glass, etc. so wear gloves to protect your hands.
- Think about where you are putting your test-pit. **DO NOT** dig it along the line of a path or where someone might easily fall into it.
- **DO NOT** dig your hole deeper than 100cm. Cover it up with something solid or fence it off if it stays open overnight.
- **DO NOT** place your spoil too close to the test-pit, there will be more soil than you think and you don't want it falling back into your hole (put spoil at least 2m away from pit).
- **DON'T** work too closely together. There are plenty of different tasks to be done (digging, sieving, recording) so you shouldn't need to get in each other's way.
- **BE AWARE** of where people are so that you don't hit them with a mattock or shovel.
- **DON'T** raise tools above your head.
- **DON'T** run with tools or run close to the test-pit.
- You will have a lot of tools, keep them together and tidy so people don't trip over them.
- Respect the weather. If it's going to be warm wear plenty of sun cream, a hat and drink plenty of fluids. If you feel the sun getting to you take a break in the shade. If it's going to be cold or wet wear appropriate clothing. If you feel yourself getting cold take a break and go inside to warm up.
- Wash your hands before eating any food.
- **STOP** digging if you find something that looks like a pipe or cable (alert a supervisor)
- **STOP** digging if you find heavily contaminated ground (ie. dumps of asbestos, oil etc. alert a supervisor).
- **STOP** digging if you find what you think is human remains (ie. lots of bone, alert a supervisor).
- Finally, it's not a race! Don't overdo it; work at your own pace, at a speed you're comfortable with and have fun!

## Quick Reference Test Pit Digging Guide

STEP	WHERE TO WORK	WHAT TO DO
1	Booklet	Fill out the <b>Test Pit Number</b> , <b>Test pit Location</b> and <b>Test pit team names</b> on the front cover of your <i>Test Pit Recording Booklet</i> (someone will come around and work out the grid reference during the excavation).
2	At test pit site	Measure out your 1m square test pit with tape, string and nails.
3	Near test pit	Lay out your plastic sheeting (this should be 2m away from the test pit).
4	Booklet	Fill in the details in the top right of the 1st <i>Spit Record Form</i> page in your <i>Test Pit Recording Booklet</i> (Page 2).
5	Booklet	Complete recording steps 1-4 on the <i>Spit Record Form</i> .
6	Beside test pit	Label a plastic re-sealable bag in permanent marker pen with the <b>Site Code</b> , <b>Test Pit Number</b> and <b>Spit Number</b> . Place it in a finds tray.
7	In test pit	Before first spit <b>ONLY</b> . Neatly remove turf (if present) with spade. This should be in small squares (no more than 20cm x 20cm and 5cm thick). Place turf at one end of plastic sheet and give it a water.
8	In test pit	Use mattock to loosen soil in test pit and the shovel to put soil into bucket. Keep the bottom of the test pit as level as possible and the sides straight. Try not to get soil on the grass.
9	On spoil heap	Sieve every bucketful of soil (holding the sieve over the plastic sheeting). Pick out of the sieve <b>anything</b> you see that looks <b>man-made</b> (these are your finds) and tip the residue onto the spoil heap on top of the plastic sheeting.
10	Beside test pit	Place your finds in the finds tray.
11	In test pit	Continue digging until you have removed 10cm from the whole surface of the pit. Use your trowel and hand shovel to remove all loose soil from the exposed surface and leave it level.
12	Booklet	Fill in the rest of the <i>Spit Record Form</i> by filling in boxes 5-8 (Use <b>Guides 1-3</b> at the beginning of the <i>Test Pit Recording Booklet</i> to help).
13	Booklet	Ensure all tasks on the <b>Recording Checklist</b> are complete.
14	Booklet	Begin the next spit by starting a new <i>Spit Record Form</i> , i.e. by returning to step 4.
Repeat steps 4-14 (omitting step 7) for Spit 2 and all subsequent spits until you have finished your test pit, then go to step 15.		
15	Booklet	Fill in all parts of the <b>FINAL Spit Record Form</b> (Page 13) in your <i>Test Pit Recording Booklet</i> .
16	Booklet	Fill in all parts of the <b>Sections Drawing Form</b> (Page 14).
17	Booklet	Fill in all parts of the <b>Test Pit Location Map</b> on the back page (Page 15) of the <i>Test Pit Recording Booklet</i> .
18	Beside test pit	Get a Supervisor to complete the <b>Supervisor's Checklist</b> .
19	In test pit	Backfill your test pit and replace turf <b>AS NEATLY AS POSSIBLE</b> .
20	In test pit	Tidy site, collect up and clean your equipment and return with everything to the excavation base.