



How to Dig an Archaeological Test Pit

What is a test pit?

An archaeological test pit is a small 1m sq trench dug in a series of layers to a depth of approximately 1m. The archaeological material collected from the different layers tell us something about how the area was 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. How to process archaeological material from your pit is detailed in **Fieldwork Guide #5**. How to interpret your results is detailed in **Fieldwork Guide #3a**.

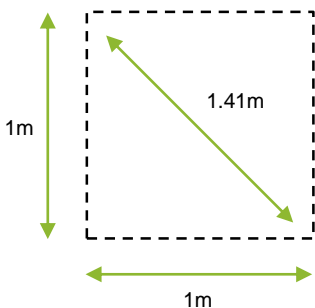
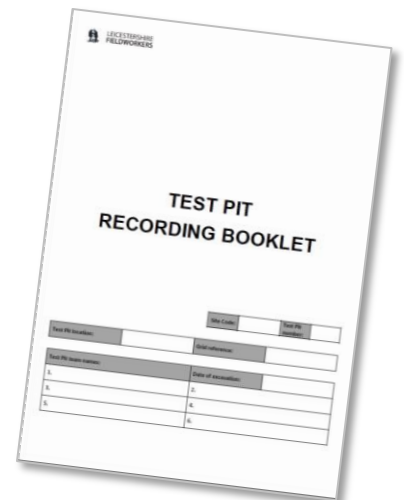
Getting Started (Quick Reference Guide Step 1)

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

- Site code – This is a unique code created to identify your project. It might be an accession number given to you by your local museum, or it might be a code you have created for your project. Everything relating to your project should be labelled with this code.
- 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, or have a GPS app on your phone, then an Ordnance Survey grid reference for the pit can be obtained easily. Alternately, the grid reference can be worked out 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 your test pit was dug.

What equipment will you 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
- A Test Pit Recording Booklet (which can be downloaded from: <http://leicsfieldworkers.co.uk>)



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 close 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. To do this:

- 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.

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 test pit to ensure that the soil does not fall back into the hole and to give you plenty of room to work safely around the pit.

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 at right-angles and the test pit will be square.



Recording you test-pit's location (Step 4)

First, turn to page 2 of the **Test Pit Recording Booklet** 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 layer 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.

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Site Code: _____ Test Pit Number: _____

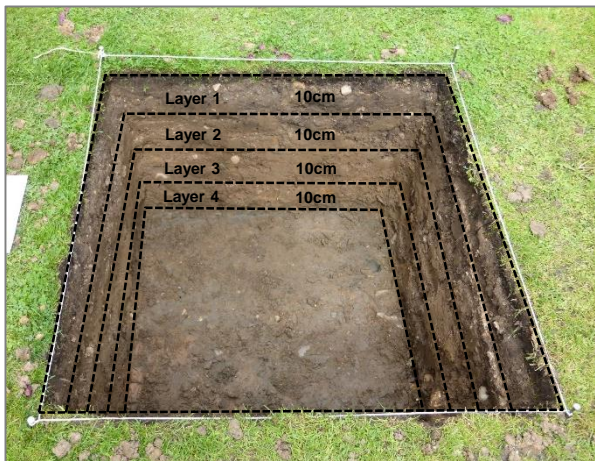
Map drawn by: _____

TEST PIT LOCATION MAP

Make an annotated sketch plan of the test-pit's location.

- 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 layer plan.
- 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.

SUPERVISOR'S CHECKLIST		NAME: _____	
TASK	COMPLETED	TASK	COMPLETED
All sign sheets completed		Site Pit located with GPS	
Section drawings completed		Test Pit backfilled	
Location map completed		Labeled equipment returned	
Post-excavation photographs taken		Test Pit record form and finds handed in	
All files tagged and labelled		SHOULD BE	



Starting your test-pit (Steps 5-7)

You will be digging your test pit in 10cm layers. Each of these 10cm layers will require a separate **Layer Record Form** to be completed in your **Test Pit Recording Booklet**. These begin to be filled in before you start to dig a layer (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 **Layer Record Form** (Page 3). Fill in the four boxes in the top right-hand corner – Site Code, Test Pit Number, Layer Recorded By and Layer Number.

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

- 1) Measure the depth of the top of the layer at the four corners of your test pit. Layer 1 will be 0cm, Layer 2 should be 10cm etc.
- 2) Draw a neat plan of the surface of the layer in your test pit using the 10cm square gridded box, so that every 1cm on your drawing represents 10cm in the test pit (For Layer 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 layer 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 **layer number** in permanent pen. All the artefacts from this layer 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 8)

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 9-12)

Once you have removed the turf, you will need to start digging your test pit using the mattock, spade, trowel and hand shovel. The equipment you use will depend on what the soil is like in your test pit. If the soil 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 layers so do not get carried away! Use the 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.

Empty 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 made by people 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.



How to dig a test pit

- Break up the soil using the mattock.
- Remove soil from the pit into a bucket with the shovel.
- Keep the base of the pit level with a trowel, only dig out 10cm at a time.
- Sieve soil onto the plastic sheet and place any finds in a labelled bag.

STOP work if one 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 you think should be left intact and undisturbed.
- You reach 1m in depth (a suggested safe depth).
- If you find a cable, human bone, asbestos, weird things that fizz, etc.
- You run out of time!

Once any of these things above happens, make sure that you finish recording the layer you are working on and move on to **Step 16** (right).

Finishing a layer and starting the next one (Steps 13-15)

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

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

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 layer is fully dug and recorded take your filled finds tray to the finds processors and start filling out the details on the next **Layer Recording Form**.

Now, it is simply a matter of repeating this process (Steps 5-15, excluding Step 8).

Recording your last layer (Step 16)

Turn to the **Final Layer Record Form** (Page 14 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 person 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 you photograph your finished test pit before you backfill it.

Your photograph/s should contain a recognisable scale, your test pit number and an arrow pointing towards north. Make sure that you get the whole test pit in the photograph, including the side and the bottom of the pit.

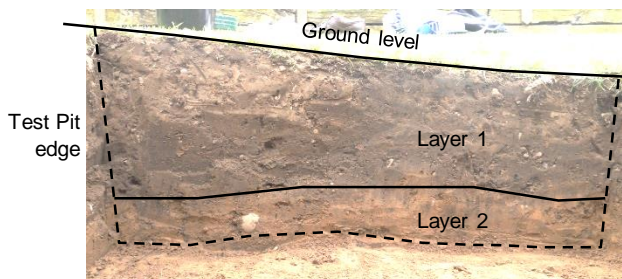
Recording your test-pit's sections (Step 17)

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 at the back of the booklet (Page 15). 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 correspond with the numbers at the corners of your layer 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.





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Finishing the test-pit and backfilling (Steps 18-20)

Once you have finished digging and recording your pit use the checklist at the bottom of Page 2 to make sure that you have not forgotten to do something. When done, you can fill the test pit 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. Keep stamping the soil down regularly as you fill in the pit; replace the turf if you removed any. You may find that there is a little bit of a mound left when your test pit is filled in. This is normal and it will go as the soil settles over the coming weeks / months.

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 your excavation base.

Finally, have a cup of tea and a big bit of cake. You deserve it!



Quick Reference Test Pit Digging Guide

STEP	WHERE TO WORK	WHAT TO DO
1	Booklet	Fill out the Site Code, Test Pit Number, Location, Grid Reference and your team members' names on the front cover of your Test Pit Recording Booklet.
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 (for safety this should be at least 2m away from the test pit).
4	Booklet	Fill in all parts of the Test Pit Location Map on Page 2 of the Test Pit Recording Booklet.
5	Booklet	Fill in the details in the top right of the 1st Layer Record Form page in your Test Pit Recording Booklet (Page 3).
6	Booklet	Complete recording steps 1-4 on the Layer Record Form.
7	Beside test pit	Write the Site Code, Test Pit Number and Layer Number on a plastic resealable bag using permanent marker pen. Place it in a finds tray.
8	In test pit	Before first layer ONLY. Neatly remove turf (if present) with a spade. This should be in small squares (no more than 20cm x 20cm and 5cm thick). Place turf at one end of your plastic sheet and give it a water.
9	In test pit	Use a mattock to loosen soil in the test pit and the shovel to put soil into a bucket. Keep the bottom of the test pit as level as possible and the sides straight. Try not to get soil on the grass.
10	On spoil heap	Sieve every bucketful of soil onto the plastic sheeting (holding the sieve over the plastic sheeting). Pick out of the sieve anything you see that looks man-made (these are your finds) and tip the residue onto the spoil heap on top of the plastic sheeting.
11	Beside test pit	Place any finds in the finds tray.
12	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.
13	Booklet	Fill in the rest of the Layer Record Form by filling in steps 5-8 (Use Guides 1-3 at the beginning of the Test Pit Recording Booklet to help).
14	Booklet	Ensure all tasks on the Recording Checklist are complete.
15	Booklet	Begin the next layer by starting a new Layer Record Form, i.e. by returning to step 5.
Repeat steps 6-15 (omitting step 8) for layer 2 and all subsequent layers until you have finished your test pit, then go to step 16.		
16	Booklet	Fill in all parts of the FINAL Layer Record Form (Page 14) in your Test Pit Recording Booklet. Photograph your test pit (the photo should contain a scale, test pit number and north arrow).
17	Booklet	Fill in all parts of the Sections Drawing Form (Page 15).
18	Beside test pit	Use the checklist at the bottom of page 2 to make sure you have not forgotten to do something.
19	In test pit	Backfill your test pit and replace turf AS NEATLY AS POSSIBLE.
20	In test pit	Tidy your site, collect up and clean your equipment and return everything to your excavation base.