

Make a plaster cast of a leaf or an animal track.

Resources

- Moulding Frame
- Mould Base
- Leaf or animal foot/paw/hoof print
- Casting Plaster (Plaster of Paris or Modelling Plaster)
- Mixing bowl and stirrer
- Scissors
- Scalpel or [fine blade] knife
- WD40 or similar

Instructions

- 1. Make a moulding frame by cutting a 'ring', about 3 cm wide, from a 2 litre plastic milk bottle (a 2 litre milk bottle is roughly 10 cm 'square'). For larger animal prints, you may have to use something bigger (a 3 litre milk bottle!) or get a little more creative;
- 2. To make the cast of a leaf in the moulding frame described above (roughly 10 cm square), thoroughly mix 150 200 g of plaster with 75 100 ml of water (the bottom part of the milk bottle used to make the moulding frame can be used for this purpose). For this first cast (the *negative*) the plaster mixture should be a thin paste that will run freely when poured. Allow the plater mix to stand for 5-10 minutes, until no more air bubbles are being released;
- 3. Place the moulding frame on the mould base (a polystyrene food tray, or similar), and place the leaf specimen in the moulding frame, face up, in the position desired. Stir the plaster mix lightly, but thoroughly, then poor it into the moulding frame, over the leaf;
- 4. To make a cast of a bird or animal track, make a moulding frame of appropriate size, place it around the print to be cast and ensure that it is in contact with or pushed slightly into the earth around its perimeter. The amount of plaster required will depend on the size of the moulding frame and the depth of the print, but will invariably be more than that required to make an impression of a leaf. Use the quantities specified in Step 2 above as a guide.
- 5. Allow 20 30 minutes for the plaster to set, then gently slide off the moulding frame;
- 6. Gently remove the leaf, or, in the case of a bird or animal print, extraneous dirt, from the plaster. If the leaf was not completely flat when the plaster was poured on (quite common) some plaster may have run underneath and set on the underside of the leaf. This plaster will need to be broken off or cut away so that the leaf can be completely removed. The removal of the leaf is invariably much

easier when the plaster is fresh, firm to the touch but not set hard and dry. In this state, any extraneous plaster will often just crumble away as the leaf is removed. This will ultimately yield a *negative* image of the leaf;

- 7. To create a *positive* image of the leaf or print, we need to make a second plaster cast, using our *negative* cast (Step 5 above) as the mould. Note that it may be necessary to 'clean up' the mould (*negative* cast) to ensure that the *positive* cast can ultimately be removed. There should be no crevices or indentations in the mould that could result in the two castings becoming 'locked' together. The positive cast needs to be able to slide neatly out of the mould;
- 8. Press the mould (the *negative* cast) back into the moulding frame, ensuring that the frame extends ~ 2 cm above the surface containing the impression to be cast;
- 9. Spray the mould surface liberally with WD40 or something similar. Several applications will usually be necessary, as the porous surface absorbs the lubricant. The purpose here is simply to avoid the new cast sticking to the mould. WD40 leaves a thin oily film on the surface of the mould;
- 10. Mix up some casting plaster as described in Step 2 above (although for this cast, a slightly thinner mixture is better), and pour it, as described in Step 3 above, into the mould. Leave 20 30 minutes to set;;
- 11. Gently slide off the moulding frame and pull the mould out of the casting. If the mould was well lubricated, this should be a relatively straightforward task. Some force will be necessary, but the separation should be able to be achieved with bare hands. The use of any other implements, such as a knife, increases the risk of breaking either the mould or the cast;
- 12. Once separated, you can colour or paint the casting to enhance its appearance and/or protect it from moisture.

Resource Preparation

Moulding Frame			
Plastic Milk Bottle	2 litre	\$ 0	Recycle
I used a narrow ruler (~3 cm) ridge around the bottle) and m then provide guides for cutting guides just long enough that a cut—scissors seem to offer be bottle with a knife. At least one relatively straight, so that it car running out underneath any im	to measure off (ho park a line around t g around the bottle pair of scissors can tter control than si e end of the mould n sit on a flat surface regularities.	old the ruler the bottle. T e. Make an is n be inserted imply trying ling frame s ce without t	up against the upper 'he ridge and this line ncision along these d to complete the to cut all around the so created needs to be too much plaster
The bottom section of the bot plaster in.	tle can now also be	e used as th	e 'bowl' to mix the

Mould Base

Polystyrene Food Tray

Recycle

I just used a polystyrene tray of the type commonly used in food packaging (vegetables, meat etc.). This is simply to provide a base for the mould, and to catch any plaster that leaks out from underneath the moulding frame.

\$0

Casting Plaster

Prep (Plaster of Paris)3 kg\$9.60Hardware StoreThrough trial and error, I determined that 150 - 200 g of plaster, in the 'milkbottle' mould, produces a casting 1 - 2 cm thick. I measured 150 g of plaster into aclear plastic cup, marked the level of the plaster in the cup with a marker pen, thenjust used this marked cup as a measure. Different brands of plaster also appear tohave different setting characteristics, so it is important to run a test with the plasteryou will use so that you understand how quickly it thickens and sets.

Leaf

Any To fit Mould Frame Garden The best examples for casting are relatively flat, but with distinct surface features. I used mint leaves to good effect. A geranium leaf provided a more interesting

example, but because the leaf was not naturally flat (plaster leaked under the leaf during casting) and also because the edges were much more 'complex' (plaster tended to leak over and around the edges), the task of 'liberating' this leaf from the cast was a lengthy and delicate exercise – not to be recommended for the young and/or impatient...

Animal or Bird Track

Any

To fit Mould Frame

Anywhere

I have found animal tracks to be somewhat more difficult to cast than leaves or bird tracks. There are a couple of issues involved. First, the plaster mixture needs top be very 'wet', because the earth around an animal (or bird) track, even when wet itself, tends to absorb moisture readily. The second, and major difficulty, particularly with animal (*vs* bird) tracks, is that the moulds are much 'deeper' and invariably seem to possess 'protrusions' that end up locking the two casts (when making the *positive* cast) together. In most cases I have had to destroy the mould to 'extract' the final *positive* cast.