

Directions for Making Permanent Mold and Cast Fossils

Use these steps to make a permanent mold and cast fossil. You can use these samples for student observation if fossil specimens are not available. Please note that the layers can be difficult to separate! Use plenty of petroleum jelly and make several examples in case one or two break or do not form well.

Other versions of this activity use modeling clay for the mold. The clay mold is then filled with plaster of Paris to create the cast fossil. While the process is faster, the disadvantage is that the clay mold is often destroyed when the plaster cast is removed.

Materials:

plaster of Paris
Water
Paper cup
Shell
Petroleum jelly

Procedure:

1. Mix water with the plaster of Paris until you have a partially solid mixture.
2. Pour the mixture into the paper cup.
3. Rub the surface of the shell with petroleum jelly.
4. Carefully press the shell into the plaster of Paris mixture. Allow to dry over a period of twelve to twenty four hours.
5. Carefully remove the shell from the plaster of Paris.
6. You should now see the impression of the shell hardened in the plaster of Paris.
7. You can change the impression into a cast of the shell by doing the following:
8. Carefully cover the surface with more petroleum jelly.
9. Mix up a small amount of plaster of Paris with water (making sure it is more liquid than solid.)
10. Pour the plaster of Paris into the mold you created.
11. Allow the plaster of Paris to dry.
12. Carefully lift your cast out of the mold.

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