



How to mummify an apple

Notes for teachers and parents

This is a great fun project which is interesting for both history and science topics.

What to do

First start with an apple: peel and core it. This will allow you to pack some of the salt inside the apple which speeds up the drying process. In Ancient Egypt the internal organs were removed before mummification and the abdominal cavity was packed.

It is fun to carve a face into the apple at this stage. Children may need a bit of help with this. An alternative would be for them to draw a face on the apple with a pencil.

Next make your salt mixture. Ancient Egyptians used Natron, which was a naturally occurring salt found in dry river beds. This project works easily with a mixture of table salt and baking soda which are both cheap and can be found at the supermarket. Mix up a mixture of 1 part baking soda to 2 parts table salt. For one apple this would be approximately 150g of baking soda to 300g of salt, but this can be easily scaled up.

Place the apple in some sort of container; a jar or plastic tub will work well. Pack the salt mixture round the apple, including inside the core until it is all covered.

Leave it for around a week (the bodies in Egypt were left for 40 days.)

By then the salt will have absorbed all the moisture from the apple and will form a crust around the dried apple.

Wash off the salt and pat the apple dry. It is now ready for the next part of its journey to the afterlife!

The science behind mummification

The salt will draw out the moisture from the apple—a process called desiccation, which will help preserve the apple and prevent it from rotting. In addition, the carbonate in the baking soda becomes alkaline when moist which also inhibits bacterial growth.



Questions to discuss

What has happened to the apple?

Why has it got smaller?

What has happened to the salt?

Why did the Egyptians mummify their dead?

Additional experiments

Weigh the apple before and after the mummification. What has happened?

Measure the circumference of the apple before and after mummification. What has happened?

Leave one fresh peeled apple and one mummified apple out in the classroom (perhaps in a sealed container). What happens to the fresh apple? What happens to the mummified apple?

Further projects

How about continuing the mummy's journey? You could add some charms and wrap the apple up in bandages before putting it in a tomb!

Related fun

Play the mummy maker game on the BBC website to see how much everyone has remembered!:

http://www.bbc.co.uk/history/ancient/egyptians/launch_gms_mummy_maker.shtml