

Mummies Made In Egypt

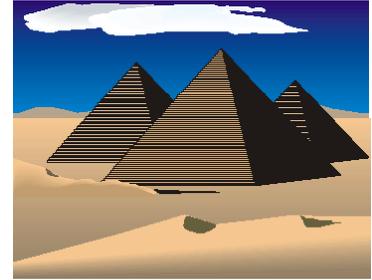
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Program Description: Just what is a mummy and where do mummies come from? At the Museum of Fine Arts in Boston we join LeVar to learn about mummies and see how the museum conserves these ancient artifacts. Then, with a closer look through CT scan technology, we discover what's underneath the mummy wrapping and, with the assistance of a forensic artist, what the mummy looked like three to four thousand years ago.



Dry As A Desert Dessert

Key Words: dry, evaporate, decompose, tissue, preserve

Concept: Drying tissue preserves it so it does not decompose as quickly.

It is thought that the first mummies were created naturally by the drying effects of the desert. The dry heat of the desert evaporated the water quickly from the tissue, so microbes that would usually decompose the tissue did not grow. Egyptians were not the only people to know that drying would preserve things. This same principle is used for making applehead dolls. The apples for these are dried relatively quickly and, while they probably won't last for thousands of years, they will last a long time.

Materials: Small apples, table knife, other safe carving items, cheesecloth (optional).

1. Peel a whole small apple, and use a knife to carve features into the apple. Then put the apple in a warm place — an oven turned on warm is ideal, or a very sunny spot with good air circulation. If the apples are set outside to dry, cheesecloth should be used to protect them from insects and they should be brought in before sunset so they are not moistened by dew.
2. After several hours in the oven (or several days in the sun), the apples will have developed a leathery surface. They will continue drying slowly but can be handled at this point. Simple bodies can be made for the dolls out of paper or cloth.

Science Note: Before refrigeration was available, people often dried food — meat, fish, vegetables, fruits — to preserve and store it for future use. These foods would be eaten in this dry state or rehydrated by adding water.

It's A Wrap

Key Words: scientists, study, deteriorate



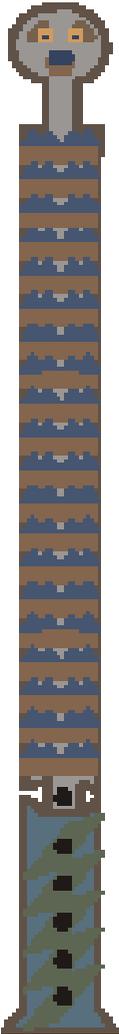
Concept: Scientists work to find ways to study things that do not make them deteriorate.

We depend on our sense of sight to provide information about things. Scientists studying mummies learned that if they unwrapped the mummies to look at them, the mummies would deteriorate more quickly than if they were left wrapped. This meant that new methods of “looking at” mummies had to be found.

Materials: Gauze, cheesecloth or paper towels, several common classroom items.

1. Individually wrap some familiar classroom items in gauze, cheesecloth or paper towels.
2. So they can use visual clues to guess what the items are, show students these wrapped items one at a time. Invite them to use tactile clues to collect additional information.
3. Later, unwrap the items and ask students what clues were the most helpful in guessing the contents.

The Case Of The Mummy Case



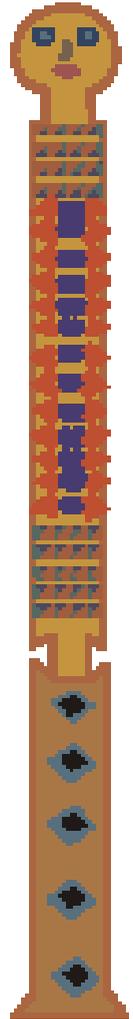
Key Words: symbols, hieroglyphs

Concept: Egyptians used symbols called hieroglyphs to write.

The Egyptians left many clues in the symbols written on the tombs of the mummies. These symbols (hieroglyphs) often told a great deal about the person buried in the tomb, and also about others who had been important to that person — some of whom were still living at the time.

Materials: Pencils, drawing paper, scissors.

1. Draw lines to divide a square piece of paper into nine sections (like a tic-tac-toe game).
2. Cut off the corner squares and discard them (the paper will then resemble a plus [+] sign).
3. Write the name of an object or person lightly in the center square. Fold one flap over the name and write a clue about the object or person on the folded-down flap. Fold the other flaps over, writing clues on the back of each of them as they are folded down.
4. Trade the “wrapped” objects and have students try to guess what is written in the center using the clues one at a time as they “unwrap” it.



Hieroglyphic Writing

Key Words: symbols, hieroglyphs, cartouche

Concept: A person's name can be written using hieroglyphs to form a cartouche.

Hieroglyphs are symbols used in the writing of ancient Egypt. There are many rules to writing with hieroglyphs. For example, the clues which help determine whether to read the text from right to left, or left to right are the symbols of living things. If animal or people symbols are facing left, then the text is read from the left. Vertical groups of symbols are always read from top to bottom.

A king's name written with hieroglyphs and enclosed in an oval shape is called a cartouche. As a very simplified introduction to the complex world of hieroglyphic writing, use these 24 hieroglyphs to create a cartouche.

Materials: Copies of hieroglyphs and cartouche samples, paper, pencils.

1. Have students compare the symbols in the sample cartouche to the list of hieroglyphs.
2. To create their own cartouche, students need to match the sounds in their names to the hieroglyphic symbols and then write them so they are read from top to bottom, or from the direction that the symbols of living things are facing. If there is no symbol of a living thing, the symbols should be drawn so they are read from right to left since that orientation was generally preferred in hieroglyphic writing.
3. Collect the cartouches and pass them out randomly so students can decipher them and discover whose name they have.

Hieroglyphic Writing

Cartouche for Cleopatra	Sign	Sound value		Sign	Sound value
	=	<i>a</i> as in ah	= <i>c</i>	=	= <i>h</i> as in hat
= <i>l</i>	=	<i>i</i> as in hit	= <i>e</i>	=	= <i>h</i> emphatic h as in ha
= <i>o</i>	=	<i>ee</i> as in see	= <i>p</i>	=	= <i>ch</i> as in Scottish loch
= <i>a</i>	=	<i>y</i> as in you	= <i>t</i>	=	= <i>ck</i> as in lock
= <i>t</i>	=	<i>a</i> as in bat	= <i>r</i>	=	= <i>s</i> as in sat
= <i>r</i>	=	<i>w</i> as in will, also <i>oo</i> as in move	= <i>a</i>	=	= <i>sh</i> as in shop
= <i>a</i>	=	<i>b</i> as in ball		=	= <i>qu</i> as in quilt
	=	<i>p</i> as in pat		=	= <i>k</i> as in kit
	=	<i>f</i> as in fat		=	= <i>g</i> as in go
	=	<i>m</i> as in mat		=	= <i>t</i> as in tap
	=	<i>n</i> as in nap		=	= <i>ch</i> as in chair
	=	<i>r</i> as in roll		=	= <i>d</i> as in dot
	=			=	= <i>dj</i> as in edge