

# KING TUT



TREASURES OF THE TOMB



EDUCATOR RESOURCE GUIDE

PRESENTED BY



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## HOW TO USE THE EDUCATOR RESOURCE GUIDE

We hope this resource guide provides ideas on how to prepare you and your students for a meaningful, informative, and fun visit to the Discovery Center that provides a relevant connection to your classroom learning objectives.

This resource guide will help orient you with the exhibition content and layout, provide helpful hints and activities to prepare students for their visit and ideas for onsite interactions as well as follow-up prompts and activities.

In each section you will find suggestions for standards-based onsite engagement and classroom prep or follow up activities related to that particular section’s content.

Teachers can pick and choose which sections, activities or themes they want to focus on with their students. On their field trip, students will experience all sections of the exhibition.

## IDAHO STANDARDS CONNECTIONS

The Idaho Social Studies and Science Content Standards identified below are an overview of some of the social studies and science standards addressed through our *King Tut* exhibition. Please remember, this is just a place to start! There are many additional connections, including those across disciplines and among many fields of science and the humanities that can be addressed during a visit to the Center.

### SOCIAL STUDIES, GRADES 6-9

#### WORLD HISTORY AND CIVILIZATION

WHC.1.6.1, 3  
 WHC.1.8.1,2,3  
 WHC.1.9.1, 2, 3  
 WHC.5.1.1

#### LIFE SCIENCE

LS 1&2 - MS  
 LS2 - 3  
 LS3 - MS/HS

#### NGSS- CROSSCUTTING CONCEPTS

Structure and Function, Stability and Change, Systems and System Models

## EXHIBITION OVERVIEW

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Discovered in 1922 by Englishman, Howard Carter, King Tut was entombed with thousands of artifacts that give us a glimpse into Ancient Egyptian life. Superbly reproduced, this magnificent collection of legendary artifacts curated by the Origins Museum Institute preserves the grandeur and mystery of one of the most astonishing archaeological tombs and treasures ever discovered- the tomb and treasures of Nebkheperure Tutankhamun, known informally, as King Tut.

The mission of the Discovery Center of Idaho is to inspire lifelong interest and learning in science, technology, engineering and math (STEM). With King Tut, the Discovery Center seeks to connect the community to the impact that sciences such as Archaeology and Anthropology have on our collective understanding of world cultures and history. These important sub-sciences employ STEM tools as scientists uncover the secrets of past civilizations using modern technology.

Crafted from the same ancient, traditional designs, the riches in this collection of over 100 artifacts are presented as a composite

portrait of an ancient individual and the civilization in which he lived.

The Discovery Center's Education team is proud to be partnering with Boise's own, Jan Summers Duffy of the OJ Smith Museum of Natural History at the College of Idaho to provide an expert voice in the development of our Teacher Resource materials, content and tour development for the exhibition.

Jan Summers Duffy, Archaeologist, Curator, Egyptologist: *"The feeling when one walks into an open royal tomb in Egypt, such as KV62, the Tomb of Tutankhamun, (which I am privileged to have done many times) creates an immediate sense of being displaced into another time, another world, and to an ancient civilization which we know little about. We are enveloped by an ethereal sense of recall, or déjà vu, the feeling of heavy death bringing forth an excitement previously unknown. Thus, wonderful things begin to appear and we gain immense knowledge about this ancient civilization. Our human curiosity about the past keeps us in constant search to learn about the meaning of life and death."*

## ASKING QUESTIONS LIKE AN ARCHAEOLOGIST

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What is Archaeology?

**Archaeology:** the study of human history and prehistory through the excavation of sites and the analysis of artifacts and other physical remains

To learn from artifacts, archaeologists ask questions like:

***Who were these people? When did they live?  
What were they and their families like?***

***Where did they live, and in what kind of environment?***

***What did they eat?***

***What tools and equipment did they use?***

***What contact did they have with other people?***

***How did they organize themselves and their society?***

And perhaps most of all, ***what did they think and feel?***

Archaeologists try to answer questions like

these, using different types of evidence -

**Environmental:** studying plant and animal remains to investigate which plant and animal species were present at the time.

**Environmental archaeology:** is a sub-field of archaeology which emerged in 1970s and is the science of reconstructing the relationships between past societies and the environments they lived in. The field represents an archaeological-palaeoecological approach to studying the palaeoenvironment through the methods of human palaeoecology. Reconstructing past environments and past peoples' relationships and interactions with the landscapes they inhabited provides archaeologists with insights into the origin and evolution of anthropogenic environments, and prehistoric adaptations and economic practices.

**Material:** any physical material in the area around which Archaeologists are digging.

**Documentary:** photographs, carvings.

Archaeologists apply approaches from several

disciplines including:

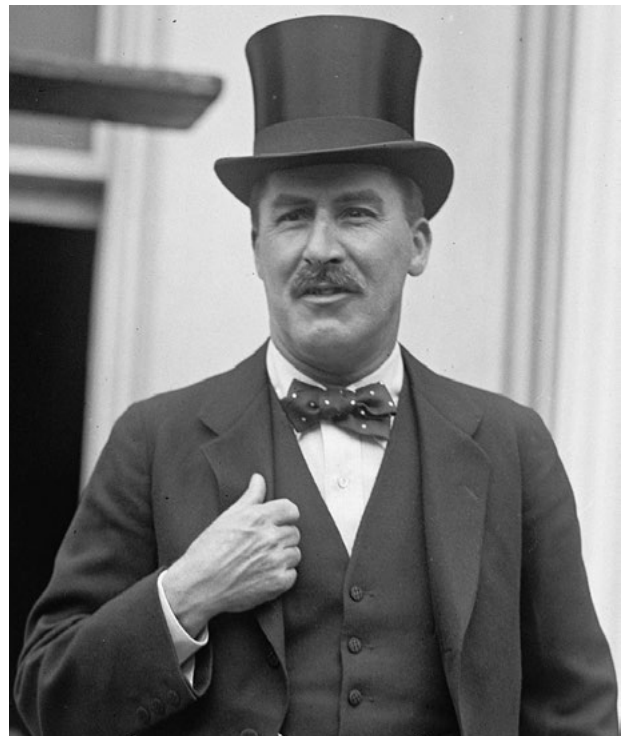
**Anthropology:** the study of human societies and cultures and their development.

**Geography:** the study of the physical features of the earth and its atmosphere, and of human activity as it affects and is affected by these, including the distribution of populations and resources, land use, and industries.

**History:** the study of past events, particularly in human affairs.

**Science:** the intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment.

## WHO WAS THE ARCHAEOLOGIST WHO FOUND KING TUT?



*Image via the Library of Congress*

**Howard Carter (1874 – 1939)** was an artist by profession. Lord Carnarvon paid him to dig in the Valley of the Kings to find “treasure.” Carter worked for 10 years before he found Tut’s tomb.

## ONSITE TEACHING/ENGAGEMENT HINT!

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Like Archaeologists, we at the Discovery Center of Idaho encourage public, teachers and students to engage in object based learning by asking similar questions of the objects on display and/or available for hands on exploration in the King Tut exhibition.

For example, choose an artifact and ask questions like these in a large group, small group or in pairs:

How would you describe this object to someone who can't see it? Who do you think might have used this? Why do you think they used it? How was it made and who do you think made it? (what evidence do you see to make you say that?) What materials were used? How can you tell? What can we tell from this object about the person or people who used it? What was important to their culture?

A fun adaptation might be: Cover the label copy to see how close student inquiry comes to the expert perspective, or start by reading the label copy and consider as a group on how the experts came to that conclusion

**Classroom modification:** choose any object in a classroom to practice [object based inquiry learning](#). See how much students, aka. Classroom Archaeologists, can learn about our own culture by asking similar questions of a Starbucks coffee cup or another every-day object.



## DISCOVERING KING TUT'S TOMB

*"November, 4, 1922 British archaeologist Howard Carter and his workmen discover a step leading to the tomb of King Tutankhamen in the Valley of the Kings in Egypt.*

*When Carter first arrived in Egypt in 1891, most of the ancient Egyptian tombs had been discovered, though the little-known King Tutankhamen, who had died when he was 18, was still unaccounted for. After World War I, Carter began an intensive search for "King Tut's Tomb," finally finding steps to the burial room hidden in the debris near the entrance of the nearby tomb of King Ramses VI in the Valley of the Kings. On November 26, 1922, Carter and fellow archaeologist Lord Carnarvon entered the interior chambers of the tomb, finding them miraculously intact.*

*Thus began a monumental excavation process in which Carter carefully explored the four-room tomb over several years, uncovering an incredible collection of several thousand objects. The most splendid architectural find was a stone sarcophagus containing three coffins nested within each other. Inside the final coffin, which was made out of solid gold, was the mummy of*

*the boy-king Tutankhamen, preserved for more than 3,000 years. Most of these treasures are now housed in the Cairo Museum."*

*via [History.com](https://www.history.com)*

### CLASSROOM ACTIVITY SUPPORT:

Here's a great Youtube playlist that brings Howard Carter's 1922 discovery of King Tutankhamun's tomb to life.

- You will see many of these objects, re-created for the exhibition when you visit the Discovery Center of Idaho.
- Conversation and/or writing prompts: What objects from these videos might you be most interested to see in person and why? What questions do you still have after watching these videos? How could you find out more?





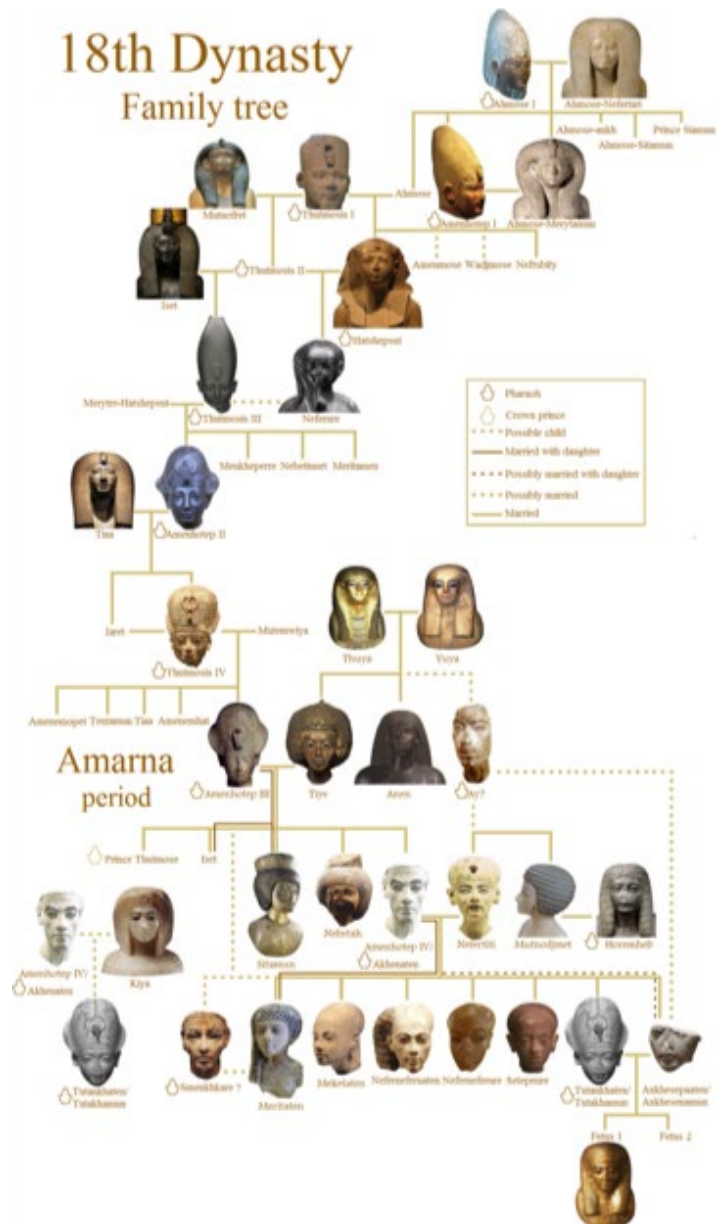
## ANCIENT EGYPT AND THE 18TH DYNASTY

What is a Dynasty?

A Dynasty is a line of hereditary rulers of a country. They are not always by bloodline, but sometimes by marriage. Pharaohs had “lesser” wives and concubines who could all produce a son that would become Pharaoh. A Great Royal Wife could either be the wife or mother of the Pharaoh.

Ancient Egypt had a total of 30 Dynasties between 3100 BCE and 332 BCE. Egypt’s pre-dynastic era (mostly in Upper Egypt) which lasted until 3100 BCE, when the country was united and the dynasties began to rule.

In addition to reviewing the evidence on materials found in and around tombs and other archaeological artifacts, or matching hereditary similarities or traits, in their physical representation in statues or images, modern Archaeologists have used DNA testing to identify Tutankhamun’s paternity.



WHAT THE HECK IS DNA?!

WHAT IS A GENE?!

## HOW DO YOU DNA TEST A MUMMY?

Here are some interesting videos that show insight into the modern process of DNA testing a mummy:



## CLASSROOM PREPARATION ACTIVITY SUGGESTIONS:

1. [King Tut and Genetics: "Heredity Mix 'n Match"](#)
2. [King Tut, Dynasties and our own family trees "Digging at the Roots of Your Family Tree"](#)

## ONSITE TEACHING/ENGAGEMENT HINT!

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If you explored the idea of traits and genetics before arriving, follow through on-site, by asking students if they see similar traits in the faces of Tutankamun, Akhenaton and others from the Dynasty.

## SYMBOLS & MATERIALS

There are so many important symbols found in Ancient Egyptian culture, as in all ancient and modern cultures around the world. Archaeologists study the symbols of the cultures where they do their archaeological digs, so that they can better understand their meanings, avoid moving or breaking important pieces or understand written stories and histories that will provide deeper insight into our collective past. Throughout this exhibition you will see symbols everywhere! Hopefully the information and resources below will help provide a sort of road map to help you and your students better understand what each of these symbols meant in the context of Ancient Egypt.

**Symbol:** There are two main definitions for what a symbol is. We're going to explore how and where both types are found in King Tut's tomb:

*1. A mark or character used as a conventional representation of an object, function, or process, e.g. the letter or letters standing for a chemical element or a character in musical notation.*

**Hieroglyphics:** This kind of writing using representational images, first began around 5,000 years ago. Egyptians wrote in hieroglyphs up to about 400 AD. Hieroglyphs are like word pictures. There were a few different types of hieroglyphs. Some stood for entire words, others were used for individual sounds. Sometimes, the same hieroglyph was used for different letters because they sound the same.

Hieroglyphics are narrative in nature, so that a person's name isn't just 5 letters, rather, it tells a story about what that person does, is known for or where they come from, etc.

	A	vulture		L	lion		W	chick
	B	leg		M	owl		X	cloth
	C	cup		N	water		Y	feathers
	D	hand		O	chick		Z	bolt
	E	feather		P	stool		CH	tether
	F	viper		Q	hill		KH	sieve
	G	pot		R	mouth		SH	basin
	H	wick		S	cloth		MAN	
	I	feather		T	loaf		WOMAN	
	J	cobra		U	chick		ANKH	
	K	cup		V	viper	<i>via egyptabout.com</i>		

## ONSITE TEACHING/ENGAGEMENT HINT!

Have students bring an Egyptian hieroglyphic character chart with them, like the one on page 12, and try to translate the hieroglyphics they find on the various artifacts. Are they finding the same translation that they are reading about in the labels?

## CLASSROOM PREPARATION VIDEO SUGGESTIONS:

**Watch 1st:** "Rosetta- the Stone that Unlocked Egypt's Secrets":



This video is a super summary of how the Rosetta Stone was created and found.

**Watch 2nd:** "Decoding Egyptian hieroglyphs (the Rosetta Stone, Champollion, and Young)"



This video is a good follow up to the first, and goes more in-depth into HOW they figured out Hieroglyphics. It also describes how hieroglyphs include both phonetic symbols *and* symbolic images.

**Cartouche:** A Cartouche is an oval or oblong enclosure of a group of Egyptian hieroglyphs, typically representing the name and title of a monarch. The cartouche was written on tombs and coffins to mark which pharaoh was buried inside, to help their souls, the Ba and the Ka, find their way back to the body and to move on to the next life. A cartouche could also be worn as an amulet, to protect the pharaohs from evil spirits and bring good luck.

This is the cartouche of King Tutankhamun. You can see that it's not written in an order that we are used to reading as Americans.



Beginning with the Old Kingdom, Kings were given 5 names.

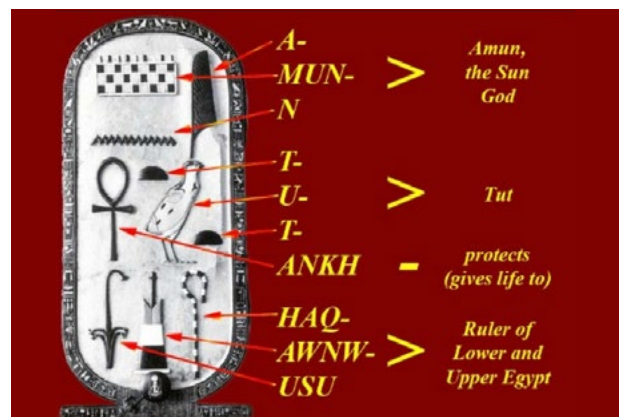
- The Horus name. This designates the king as the god Horus, the son and successor of Osiris.
- The Two Ladies name. This name is used less often.
- The golden Horus name. This name is used less often, as well.

Source: [The Thinking Muse](#)

- The throne name (prenomen). This name is given when they become king. It is included inside the cartouche.
- The birth name (nomen). The name given at birth. It can be a name common to other members of the dynasty. It often includes the title "son of ...". It is included inside the cartouche as well.

Many names, royal and non-royal, had religious symbolism and a reference to a particular god. For example, Tutankhamen is translated as "living symbol of Amon" and Amenhotep translates as "Amon is in peace." To be respectful of those gods regardless of where the god's name fell in the name, it always appeared first in the placement of the symbols.

The image below shows how this works with the cartouche of Tutankhamun. The image is also nice because it displays character by character what it all means.



## ONSITE TEACHING/ENGAGEMENT HINT!

Have students find Tut's cartouche! Hint: it's not black and white!

### Symbols Part 2:

*1. A thing that represents or stands for something else, especially a material object representing something abstract. In Ancient Egypt, these types of symbols can be found on their own, and seen in jewelry and other movable objects that could be used as lucky charms.*

Samples you'll see in the exhibition:



**Ankh:** The ankh is an ancient Egyptian hieroglyphic symbol that was most commonly used in writing and in Egyptian art to represent the word for "life" and, by extension, as a symbol of life itself. The ankh has a cross shape but with an oval loop in place of an upper bar. It originally came from the shape of the ankle and foot straps of a sandal.



**Scarab:** Scarabs are a common type of amulet, seal or ring bezel found in Egypt, Nubia and Syria from the 6th Dynasty until the Ptolemaic Period (2345-30 BC). The earliest were purely amulet and uninscribed: it was only during the Middle Kingdom (2055-1650 BC) that they were used as seals. The scarab seal is so called because it was made in the shape of the sacred scarab beetle (*scarabaeus sacer*), which was personified by Khepri, a sun god associated with resurrection. The flat underside of the scarab, carved in stone or moulded in faience or glass, was usually decorated with designs or inscriptions, sometimes incorporating a royal name.

**Materials:** there are some of the materials that were used to create the artifacts found in King Tut's tomb that provide insight for archaeologists into the environment in which the Ancient Egyptians lived as well as economic status and trading that took place across the ancient world.

**Gold:** a yellow precious metal, the chemical element of atomic number 79, used especially in jewelry and decoration and to guarantee the value of currencies. [Check out this video](#)

**Ebony:** heavy blackish or very dark brown timber from a mainly tropical tree.

**Ivory:** a hard creamy-white substance composing the main part of the tusks of an elephant, walrus, or narwhal, often (especially formerly) used to make ornaments and other articles.

**Papyrus:** a material prepared in ancient Egypt from the pithy stem of a water plant, used in sheets throughout the ancient Mediterranean world for writing or painting on and also for making rope, sandals, and boats.

[Check out this video](#)

**Alabaster:** a fine-grained, translucent form of gypsum, typically white, often carved into ornaments. [Check out this video](#)

### PRE OR POST-VISIT ACTIVITY SUGGESTION:

Review the following materials found in the exhibition. Have students research where each material was found and produced during the 18th Dynasty of Egypt and consider which would have had to be traded locally or internationally. Other questions to explore might be: How were these materials formed into the objects in the exhibition using technology and tools of Ancient Egypt? Which of these materials might have been the most expensive, and why?

**Lapis Lazuli:** a bright blue metamorphic rock consisting largely of lazurite, used for decoration and in jewelry.

[Check out this video](#)

**Turquoise:** a semiprecious stone, typically opaque and of a greenish-blue or sky-blue color, consisting of a hydrated hydroxyl phosphate of copper and aluminum.

[Check out this video](#)



## THE LIFE OF AN ANCIENT EGYPTIAN

Considering that King Tutankamun lived over 5,000 years ago in a country over 5,000 miles away from us, Ancient Egyptian life wasn't all *that* different. Here are a few interesting facts that highlight the similarities between our experience in the 21st Century and the life experience and culture of the 18th Century Dynasty of Egypt:

- Ancient Egyptians loved board games. In the exhibition, students will see an ebony game box and casting sticks as part of King Tut's favorite game: *Senet*. Senet was a game of chance where the movement of pawns on a checkerboard was determined by a throw of casting sticks. Imagine how different chess would be if it were all up to chance!
- Egyptian women had a wide range of rights and freedoms. While still not "equal" to men, Egyptian women had legal and financial independence and often received equal pay for doing the same jobs as men.
- Pyramids were not built by slaves. Just like our large buildings and architectural works of art, pyramids were built and designed by skilled artisans and craftsmen and paid day-workers

- Egyptian doctors had specialties, just like ours today. While there were more generalists, there were also specialists such as Dentists and Gynecologists

### PRE-VISIT VIDEO SUGGESTIONS:

These are well made, researched and easily accessible resources to help prepare your students to visit the King Tut exhibition at the Discovery Center with relevant prior knowledge to help deepen their experience.



Ancient Egypt: What Everyday Life was Actually



Live a Day in the Life of King Tut



What it Was Like to Be Egyptian Royalty

## SACRED BURIAL

There are so many beautiful treasures to look at, that sometimes it's easy to forget that this is a tomb, a place where a young king was waiting to rise again into the afterlife.

Ancient Egyptian's beliefs of the afterlife includes three ideologies:

1. **Belief in the underworld (Duat)**
2. **Eternal life**
3. **Rebirth of the soul**

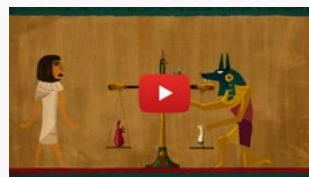
In order to achieve the ideal afterlife, many practices had to be performed during one's life. This may have included acting justly and following the beliefs of Egyptian creed. Egyptians stressed the rituals completed after an individual's life has ended. It was the responsibility of the living to carry out the final traditions required so the dead could promptly meet their final fate. Ultimately, maintaining high religious morals by both the living and the dead, as well as complying to a variety of traditions, guaranteed the deceased a smoother transition into the underworld.

### Belief in the Underworld

**Instructions for Death Journey:** the Egyptians believed the soul, once awoken after death, would be disoriented and may not remember its time on earth, its death, or even what to do next. To help the soul with this confusing time artists and scribes would create paintings and text related to the deceased's life to help them remember who they are as well as give them tips on how to navigate the after-life and what to do now that they have crossed over. There are three main versions of this text that evolved over the course of time. The text most referred to has been titled, by western scholars, *The Book of the Dead*. The literal translation of the title is: *The Book of Coming Forth by Day or Spells for Going Forth by Day*.

### PRE-VISIT VIDEO SUGGESTION:

As students view the video have them list parts or symbols from the story of Ani to look for in the artifacts from King Tut's tomb. On-site, students can search for evidence of King Tut's preparation for his trip to the underworld.



TedX: The Egyptian Book of the Dead: A guidebook for the underworld:

**Mummies!**

When most of us think of Ancient Egypt, we think of mummies. Before King Tut could make his journey to the afterlife, he had to be mummified. Mummification is a very specific process that was followed to preserve the body so that it could receive it's soul in the afterlife.

**FUN FACT!**

In 1994, Egyptologist Bob Brier and Dr. Rob Wade got together to create a modern-day mummy following the specific steps of the ancient mummification process! The mummy is named "MUMAB" which stands for the Mummy of University of Maryland At Baltimore. The unnamed man who lived into his late seventies, agreed 10 years before his death, to donate his body to the Maryland State Body Donor Program. Today, MUMAB still shows no sign of decay, and is stored at the San Diego Museum of Man, (except when

**PRE-VISIT VIDEO SUGGESTION:**

Here is a great resource from Ted Ed that provides a very helpful video and lesson plans to explore the science and culture of mummification more deeply with your students:



Ted Ed: How to Make a Mummy - Len Bloch

he's on tour with the Mummies of the World exhibition.) (The Discovery Center of Idaho's Education Director, worked at a museum where MUMAB was on display for a short time and says that while he might not be decaying, he sure doesn't smell very good!)

[Via Strange History](#)

## EDUCATION AT DISCOVERY CENTER OF IDAHO INFORMATION & CONTACT

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The Discovery Center of Idaho's mission is to inspire lifelong interest and learning in Science, Technology, Engineering, and Math.

The Education Department at the Discovery Center of Idaho seeks to provide quality educational experiences & programs that reflect excellence in their development, mastery in their delivery, and offer relevant and sustainable interactions that inspire lifelong interest and learning in S.T.E.M. for a diverse, local, regional, and state-wide, DCI community.

If you have any questions or need help in any way while planning your class trip to the Discovery Center of Idaho, please reach out to [education@dcidaho.org](mailto:education@dcidaho.org).

