Grades: 9-12

Secrets of the Dead: "Scanning the Pyramids"

Travel with the scientific team granted unprecedented access by the Egyptian government to solve a 4,500-year-old mystery: what lies within the Great Pyramid at Giza. Using non-invasive technologies, they make a historic discovery.

> **After watching this episode, choose from the following questions and/or tasks to extend your learning**

- Why has the Great Pyramid of Khufu fascinated people for centuries?
- What lies within the heart of this pyramid?
- What tools were used to explore every corner of the pyramid?
- What is Muography, and how did it help scientists see inside the Great Pyramid?
- What discovery made news around the world?
- What did the global team of Scan Pyramids discover during their two-year exploration?
- How did the discoveries at the Great Pyramid of Khufu change the way in which historians view the ancient Egyptian culture?

- Why is it important to learn about the long past?
- What events of today might influence the discoveries of tomorrow?

- Compare the geometry of the pyramids with the shape of the chambers. Why was that shape used over others, do you think? Justify your reasoning.

- Research the Kings and Queens of Egypt. What can their reign tell us about the beliefs and culture of ancient Egypt?
- What is the golden ratio and how is it used in architecture?
- Why are artists and architects drawn to the golden ratio when creating artworks?
- Explore ancient Egyptian art and hieroglyphics. How would you translate the hieroglyphs found? Recreate the art and create your own hieroglyphs.

Continued on the next page…   were necessary during the construction of the
                                        you think would be necessary to build a
pyramid today?
- Technology permits us to accomplish things in less invasive and more timely

ways. In this case, it was used to preserve the pyramid's site while still gaining access to information.

- How else might technology be used to solve problems in your day-to-day life?
    - Think of a new way to use a current technology to solve a common problem.
    - Test your idea to see if it works.
    - If it doesn't work, what would it take to make it work? Create a prototype of your solution.
    - If it does work, share your idea with friends/family and encourage them to try your idea.