

Egyptian Pyramids @ Ancient Egypt3D

Teaching the Egyptian Pyramids and Ancient Egypt through 3D simulation

Lesson

Teaching the Egyptian Pyramids and Ancient Egypt through 3D simulation

Objectives

1) Students will gain a basic understanding of the Egyptian Pyramids and Ancient Egypt through 3D simulation and visualization,

2) Students will gain a deeper understanding of the construction of the Egyptian Pyramids and their role in Ancient Egypt.

Activity

Students travel through the Egyptian Pyramids and Ancient Egypt in real-time 3D, helping them to visualize and understand their structure and function.



Materials (cut and paste URL into browser, or Ctrl+click on picture above)

The 3D Giza Pyramids of Egypt

<http://www.sunrisevr.com/gizapyramidsofegypt>

3D Simulation and Investigation

3D simulations are designed to make subject matter more engaging to today's technology-savvy kids, and help them bridge the gap between the "concrete" world and the abstract world of concepts. When students experience complex subject matter in real-time 3D it becomes clearer. Students learn best when they are actively immersed in subject matter from a variety of different viewpoints; 3D simulation is designed to help students visualize difficult ideas and objects through investigation at any scale (atomic, cellular, planetary, conceptual, etc), and doing things that would normally be impossible.

Required Technology

- PC/Tablet

Optional Technology

- Projector
- Multiple Computers
- Internet Connection

Grouping

- Large Group Instruction
- Small Group Instruction

Staging

Check computer/Tablet for Internet access if needed

Procedure

1. Access program
2. Pick a lead student navigator to control movement through the 3D environment
3. Pick a lead to read information about the Egyptian Pyramids as it appears on-screen
4. Begin the lesson by asking students what they already know about the Egyptian Pyramids; write responses on the board
5. Review basic facts about the Egyptian Pyramids including:
 - The Pyramids are among the great achievements in human history
 - The Pyramids are the only one of the Seven Wonders of the World still standing
 - The Great Pyramid was the tallest structure on Earth for over 4,000 years
6. Start traveling through the program; facilitate discussion by asking students where the class should go
7. Use the 3D simulation as a visual aid; explain information as needed
8. Have students pay special attention to:
 - The materials used to build the Pyramids
 - The alignment and mathematical concepts involved
 - Possible uses of the Pyramids
9. Have a final wrap-up with students with a question and answer period about the Pyramids. Ask them why they were built, how they were built, and what their uses are

Optional Activity: 3D Scavenger Hunt + Discussion

Have students find a particular part of Pyramid Complex, such as Khafre's Pyramid. If students are on multiple computers, have them "race" to the part of the complex the teacher wishes to highlight. Once students find/arrive at the location, the teacher may commence discussion. Repeat in other areas of the simulation as desired to build understanding.

Homework/Review

Students may also access the program outside the classroom to supplement textbook questions

Functional Notes

1. The program is available on multiple platforms
2. If using the program online, please ensure the Unity3D Player is installed on the computer; through the Internet Explorer Browser; download the latest at <https://unity3d.com/webplayer>.
3. If you see something in **red** you can probably click on it
4. For ease of use you can go through most 3D objects, and even the ground
5. The school library can request and access programs (free) at www.sunrisevr.com for off-line use via PC and Mac if there is no internet connection