

VR experience of the construction of the Egyptian pyramids(v1):

MaFEA – Making Future Education Accessible
PR3 - EDUCATIONAL LEARNING PATHS

Technology tools (version):	Pico 4 Enterprise
Requirements: What do you need? (Think hardware, skills, knowledge.)	<ul style="list-style-type: none"> ○ Familiarity with VR technology and problem-solving skills are required, including setting up and managing VR glasses and using related software. ○ 360-degree video must be compatible with Pico 4 glasses and is of high quality. ○ Good internet connection
Optional technologies:	<ul style="list-style-type: none"> ○ Computers or tablets may be required to set up VR goggles or present additional learning materials, such as worksheets. ○ A projector or TV can be used to display images from VR glasses.
Date:	15.01.24
College:	Tartu Vocational College
Author:	Anu Tintera
Topics of the lesson(s):	Construction techniques in Egypt, exploring the relationship between architecture and construction, and their impact on society. # Virtual Reality
Estimated time:	<90 min>

Lesson title/subject: <VR experience of the construction of the Egyptian pyramids>



Funded by
the European Union



mafea.eu

MaFEA – Making Future Education Accessible

Intention: What do you wish for or hope to happen? (Intentions are often not measurable or tangible, but help you in developing the design process.)

1. The goal is to use innovative VR technology to provide students with new knowledge and perspectives on the ancient Egyptian pyramids, while also highlighting the fact that some construction methods have remained unchanged for millennia and that buildings always reflect the cultural perceptions of the society in which they were built.
2. Hopefully, students will become more interested in history and understand the links between history and their vocational training.

Desired Outcomes: One or more measurable and tangible goals the teacher aims for with this lesson/these lessons.

1. Students will be able to describe the main features and historical significance of the pyramids of Ancient Egypt.
2. They will also be able to compare ancient Egyptian building techniques with modern building methods.
3. Finally, they will create their own pyramid designs, demonstrating an understanding of historical and cultural aspects.

Agenda: HOW are you going to reach the goals? Description of the lesson plan / educational activities / working methods.

1. Introduction (15 min): a discussion on the ancient Egyptian pyramids and their significance.
2. Watching video with VR glasses (30 min)
3. Discussion and group work (20 min): Students discuss their own experiences and compare the construction of the pyramids with today.
4. Completing a worksheet (20 min): Students answer questions and create their own pyramid design.
5. Summarise the lesson and ask for feedback from the students (5 min)

Roles: Who facilitates what? Who participates? What do we expect of the students?

1. Teacher: Leads discussions, monitors the use of VR devices, helps students complete worksheets.
2. Pupils: actively participate in discussions, watch VR videos, complete worksheets and create pyramid designs.



mafea.eu

MaFEA – Making Future Education Accessible

Expectations for students include active participation, reflection, cooperation, and respect for both peers and teachers.

Rules: Rules or principles are about how you want to learn and work together.

1. All students follow the instructions and behave responsibly with VR devices.
2. Respect each other's thoughts and opinions.
3. Focus on tasks and give constructive feedback.

Time: Describe the time path: What time do we start / finish / break? When is the time for reflection? What happens between contact times?

1. The lesson lasts 90 minutes in total.
2. Pauses: pauses as needed, especially after watching a VR video.
3. For the last 5 minutes of the lesson, take time to reflect on what you have learned. This is the summary and feedback part of the lesson.
4. If the pupils are short of time, they can work on their pyramid drawing at home.

Extra: Ancient Egyptian Pyramids: VR Video Follow-up Worksheet

This worksheet is designed to stimulate thought and discussion, helping students integrate their VR experience with real historical information.

1. Questions About the Video

- 1.1 Describe three main features you noticed in the design or construction of the pyramids.
- 1.2 How does the interior of a pyramid differ from its exterior, and what might this tell us about Ancient Egypt?

2. Historical Context

- 2.1 What was the primary purpose of the pyramids in Ancient Egyptian society?
- 2.2 Explain how the pyramids reflect Ancient Egyptian beliefs, culture, and technology.

3. Comparison with the Present Day

- 3.1 Compare the construction techniques of Ancient Egyptian pyramids with modern building methods.



mafea.eu

MaFEA – Making Future Education Accessible

3.2 What similarities and differences do you notice between these two styles of construction?

4. Creative Task

4.1 Design your pyramid: describe its purpose, design, and materials used. You may also draw a sketch.

5. Self-Assessment and Feedback

5.1 What new things did you learn about Ancient Egyptian pyramids during this lesson?

5.2 How did VR technology help you better understand Ancient Egyptian history and architecture?