BLOOMING

Inclusion and Diversity in STEAM

Lesson Plan

Exploring STEAM Through Edutainment and Humane Technology

Lesson Plan: Exploring STEAM Through Edutainment and Humane Technology

Grade Level: High School (Grades 9-12)

Subject Areas: Science, Technology, Engineering, Arts, Mathematics (STEAM)

Duration: 3 Class Periods (45 minutes each)

Objectives:

Students will understand the concept of edutainment and how it blends education and entertainment to enhance learning.

Students will explore the ethical implications of technology and its impact on society, particularly with artificial intelligence (AI).

Students will design a simple edutainment game or app concept that teaches a scientific or societal concept.

Students will develop critical thinking, creativity, and problem-solving skills through collaboration.

Erasmus+

Materials:
Laptops or tablets for research and design
Projector and computer for presentations
Paper, pencils, and markers for sketching game or app ideas
Access to online tools for game design or presentation (e.g., Scratch, PowerPoint, Canva)
Whiteboard and markers

Total Time: 3 Class Periods (135 Minutes)
Period 1 (45 Minutes): Introduction to Edutainment and Humane Technology
Warm-up (10 minutes):

Begin with a discussion on the concept of edutainment—the combination of education and entertainment. Ask students if they've ever learned something through a game, app, or video that was both fun and educational.

Introduce Elisavet Kiourti's career and focus on making scientific knowledge accessible through edutainment and humane technology(Blooming Interview Ques…).
Briefly discuss the ethical aspects of technology, particularly AI, and how it affects society.
Activity 1 (20 minutes):

Case Studies in Edutainment: Show examples of popular edutainment games or apps (e.g., Duolingo, Minecraft Education Edition, CodeCombat).
Discuss how these examples combine gameplay with learning.
Explore how technology can be designed to serve educational purposes while also being entertaining.
Activity 2 (15 minutes):

Group Discussion: Divide students into small groups to brainstorm ideas for their own edutainment app or game.
They should think about a scientific concept or societal issue (e.g., climate change, AI, space exploration, coding) that they can teach through the game.
Each group should sketch out initial ideas on paper.
Period 2 (45 Minutes): Designing an Edutainment Game or App
Warm-up (5 minutes):

Recap the concept of edutainment and ask students to share the scientific or societal issue they are focusing on for their game.
Activity 1 (20 minutes):

Game/App Design Challenge:
Each group will design a basic concept for their edutainment game or app.

Encourage them to think about the target audience (e.g., children, teens, adults) and the educational goals of their game.

Students should create a rough sketch or outline of the gameplay, including key features and how the game will teach the concept.

Activity 2 (20 minutes):

Refining the Concept:

Groups will continue refining their ideas, adding more detail to their game or app design.

They should consider the balance between fun and education—how will the game keep users engaged while also teaching valuable lessons?

Period 3 (45 Minutes): Presenting and Reflecting on Edutainment Projects

Warm-up (5 minutes):

Recap the previous class, emphasizing the importance of making learning accessible and enjoyable through edutainment.

Activity 1 (25 minutes):

Presentations:

Each group will present their edutainment game or app concept to the class.

They should explain how their game works, what the educational goals are, and how they will engage users.

Encourage students to consider how humane technology can be integrated (e.g., ensuring the game promotes well-being, avoids addictive mechanics, or respects user privacy).

Activity 2 (10 minutes):

Group Reflection:

After the presentations, hold a class discussion on the various game/app ideas.

Ask: What makes a game educational and fun? How can technology be used ethically to improve learning?

Closure (5 minutes):

Summarize the key takeaways from the lesson, highlighting the importance of designing technology that benefits society ethically, as Elisavet Kiourti emphasizes in her work.

Ask students to reflect on how they might use technology to create positive change in the future.

Assessment:

Participation in group activities and discussions.

Creativity and functionality of the edutainment game/app design.

Ability to explain the educational goals and ethical considerations of their design.

Extension Activity:

Have students use a simple game development platform (e.g., Scratch) to create a prototype of their edutainment game.

Invite a guest speaker who works in educational technology or humane technology to discuss careers and innovations in the field.