idevelop

Course STEAM: A New Path for Education, 10 days

Málaga

Competences

Methodology

Results

DAY 1: Science and Technology

9:00-10:00	Introduction to STEAM Education, Understanding the principles and importance of STEAM education
10:00-11:00	Robotics and Programming in a STEAM Classroom, Exploring the role of robotics and programming in STEAM education
11:00-11:15	Coffee Corner
11:15-12:30	Workshop: Incorporating Robotics and Programming into STEAM Lessons, Hands-on session on integrating robotics and programming into science and technology lessons
12:30-14:00	Group Discussion: The Future of STEAM Education

DAY 2: Tools

9:00-10:00	Software and Materials for STEAM Projects, Exploring various software and materials suitable for STEAM projects
10:00-11:00	Workshop: Creating a STEAM Project, Step-by-step guide on creating a STEAM project based on a curricular science topic
11:00-11:15	Coffee Corner
11:15-12:30	Project Development: Designing a STEAM Project
12:30-14:00	Sharing and Feedback: Participants present and discuss their project ideas

DAY 3: Engineering

9:00-10:00	Introduction to Engineering in STEAM, Understanding the role of engineering in STEAM education
10:00-11:00	Example 1: Human Body (Basic Scratch Game), Hands-on session creating a basic Scratch game related to the human body
11:00-11:15	Coffee Corner
11:15-12:30	Example 2: Water Cycle (Experimentation), Engaging in a water cycle experimentation project
12:30-14:00	Reflection and Application: Applying Engineering Concepts in Projects

DAY 4: Why STEAM

9:00-10:00	Creating STEAM Projects Based on Science and Technology Topics, Strategies for developing STEAM projects aligning with science and technology subjects
10:00-11:00	Workshop: Project Development Session
11:00-11:15	Coffee Corner
11:15-12:30	Group Collaboration: Developing STEAM Project Ideas
12:30-14:00	Presentation: Sharing and Discussing Developed Project Concepts

DAY 5: Starting my own STEAM Project

9:00-10:00	Example 1: Simple Machines (Experimentation), Hands-on experimentation with simple machines
10:00-11:00	Example 2: Microbit Robotics (Automated Sun-Powered Light), Building and programming a Microbit robotics project
11:00-11:15	Coffee Corner
11:15-12:30	Project Development: Creating Personal STEAM Projects
12:30-2:00	Project Implementation: Practical Application of Projects

DAY 6: Design

9:00-10:00	The Role of Arts in STEAM Education, Understanding the fundamentals of incorporating arts into STEAM
10:00-11:00	Workshop: Creating STEAM Projects Based on Arts Topics
11:00-11:15	Coffee Corner
11:15-12:30	Project Development: Integrating Arts into STEAM Projects
12:30-14:00	Presentation and Feedback: Sharing Arts-Based STEAM Project Ideas

DAY 7: Arts

9:00-10:00	Example 1: Musical Tubes (Physics and Music), Engaging in a project that combines physics and music
10:00-11:00	Example 2: Comics with Block Constructions (Lego), Creating comics with Lego block constructions
11:00-11:15	Coffee Corner

| 11:15-12:30 | Exploring Interesting Projects: Minecraft Education, History of Architecture, and Stop Motion with Lego Blocks |
| 12:30-14:00 | Project Development: Participants begin developing their arts-based STEAM projects |

DAY 8: Mathematics

9:00-10:00	Creating STEAM Projects Based on Mathematics Topics, Strategies for developing STEAM projects aligning with mathematics subjects
10:00-11:00	Workshop: Project Development Session
11:00-11:15	Coffee Corner
11:15-12:30	Group Collaboration: Developing Mathematics-Based STEAM Project Ideas
12:30-2:00	Presentation: Sharing and Discussing Developed Project Concepts

DAY 9: Methodology

9:00-10:00	Example 1: Coordinates Axis (Scratch), Practical session on creating a project based on coordinates axis using Scratch
10:00-11:00	Example 2: Quantification (ScratchJr), Application of quantification concepts in ScratchJr
11:00-11:15	Coffee Corner
11:15-12:30	Workshop: Methodology in Action
12:30-2:00	Practical Application: Participants implement the learned methodology in their projects

DAY 10: My Own STEAM Project

9:00-10:00	Project Finalization and Refinement, Participants refine and put the finishing touches on their personal STEAM projects
10:00-11:00	Project Presentation Rehearsal, Participants rehearse and prepare to present their projects
11:00-11:15	Coffee Corner
11:15-12:30	Project Presentations, Each participant presents their unique STEAM project to the group
12:30-14:00	Evaluation and Certificate Distribution, Group evaluation and feedback session, Participants receive their training certificates