IRONBRIDGE COMPETITION

INTRODUCTION

Minecraft: Education Edition is an open-world game that promotes creativity, collaboration, and problem-solving in an immersive environment where the only limit is your imagination. As a game-based learning platform, Minecraft offers educators a transformative way to engage students and ignite their passion for learning. Teachers from around the world are already using Minecraft in their classroom to successfully:

- Increase Student Engagement,
- Facilitate Classroom Collaboration
- Provide opportunities for Creative Exploration
- Connect Learning to Tangible Outcomes

For more information on using Minecraft in your classroom, or to find additional education resources and training materials, visit

education.minecraft.net

IRONBRIDGE COMPETITION
FACILITATOR'S GUIDE

Subjects: English | History | Design & Technology

Age Group: Year 4 | Year 5 | Year 6 | Year 7 | Year 8

Keywords: Cast-iron | iron ore | bridge | gorge | river | cooling tower | Industrial Revolution | River Severn | tollhouse | Abraham Darby

LEARNING OBJECTIVES

Students will:

- Explore the historical significance of Ironbridge and the surrounding area.
- Design and build a bridge that reflects modern-day Telford.

TOOLS AND EQUIPMENT

- Printed lesson resources
- Access to a computer that can connect to Minecraft: Education Edition via the internet

OVERVIEW

In this lesson, students will explore the historical significance of Ironbridge before building their own bridge that reflects modern-day Telford.

STUDENT ACTIVITIES

Share an image of the Ironbridge. Pair the students and ask them to discuss what they think of when they see the image.

Guiding questions:

- What is the name of the bridge shown in the image?
- Why was the bridge important?
- Where is the bridge located?
- From what material is the bridge made?

Explain to the students that Ironbridge is known throughout the world as the symbol of the Industrial Revolution and that, in this lesson, they will learn about Ironbridge and its historical significance.

Inform the students that they have been challenged to find out some facts about Ironbridge before creating a new bridge, in Minecraft, which symbolises modern-day Telford.

Minecraft World Exploration:

Have students load the Ironbridge Minecraft world file. Using the camera and portfolio, students should take a photo and make notes on what they learn as they complete this exploration. Students will begin their exploration at the entrance to the Ironbridge where, by interacting with the Non-Player Characters (NPCs), they will discover facts about Ironbridge and the town's historical heritage.

Students must start by finding answers to three questions displayed on the billboard by speaking to each of the three tour guides found at each of the key locations: Ironbridge, Jackfield Bridge, and the cooling towers.

As they find each answer, the students should take a photo of the object in question and write their answer in their portfolio.

Once the students have successfully answered all three questions, they must head over to the 'Challenge' NPC (located on the far side of the Ironbridge) who will unlock creative mode and introduce them to the final challenge: Design and build a new bridge that symbolises modern-day Telford.

Teaching notes:
1. If a student loses the camera and/or portfolio, they can pick up a replacement from the 'Welcome' NPC.
2. Students can work in teams of up to four to build their bridge.

Performance Expectations

By the end of the lesson, students should have:
- For each of the three questions, the students should use the camera to take a photo of the object and write the answer to the question in their portfolio.
- Started to design and build their bridge.

GLOSSARY

Camera - The Camera allows students to take screenshots of what they find in the Minecraft world.

Creative mode - Creative mode removes much of survival aspects within Minecraft and affords players the ability to more easily create and destroy structures. Players are given an infinite amount of blocks of all types, as well as no health or hunger bars to hamper them. Players can destroy all blocks instantly without regard to durability. Additionally, Creative mode allows players to fly.

Non-Player Character (NPC) - An NPC is a character not controlled by a player. They could be used to display text and provide the player with options in the form of buttons. In Minecraft, an NPC, can be placed in the game to provide information to students, give direction, or provide links to other resources.

Portfolio - The portfolio is a place where students can save the screenshots they've taken with the Camera and add notes. Once complete, the portfolio and its contents can be exported as a pdf.