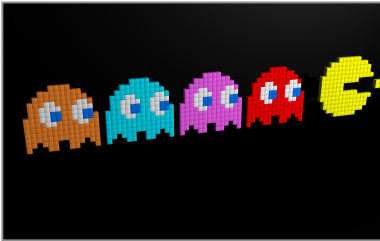


MATHS IN GAMES



DESCRIPTION

In this workshop participants will learn to see games in a completely new way through considering the mathematics that is crucial to how they are played and won. Participants will explore how maths is used in a variety of games from board games such as Monopoly to well-known computer games such as Pac Man.

During the workshop participants will construct an algorithm for winning a game of Connect 4 and will compete with each other in a small tournament using their algorithms.

Through the workshop, participants will gain an appreciation for mathematics and its use in computing science.

The details below outline the suitable participants and requirements for this workshop. The workshop can be adapted to suit the different needs of a specific school.

WORKSHOP LENGTH

Typically 2 hours in length.

A shorter version of 50 minutes can be provided, which will provide less in depth analysis.

AGE OF PARTICIPANTS

S1 – S6

The difficulty of the workshop is adjusted depending on the prior knowledge of participants and their level of study.

LOCATION REQUIREMENTS

- Pupils will work in groups of 2-4, so an area with tables is required.
- All prototyping materials will be provided.

LEARNING OUTCOMES

- Exploring creativity.
- Understanding of wearable technologies and the future opportunities that these technologies provide.
- Understanding of the needs of different user groups.
- Development of teamwork skills.
- Development of problem solving skills.