

STEM @ the Zoo

Science, tech, engineering and maths in the real world

Year 10-11

Learning Outcomes:

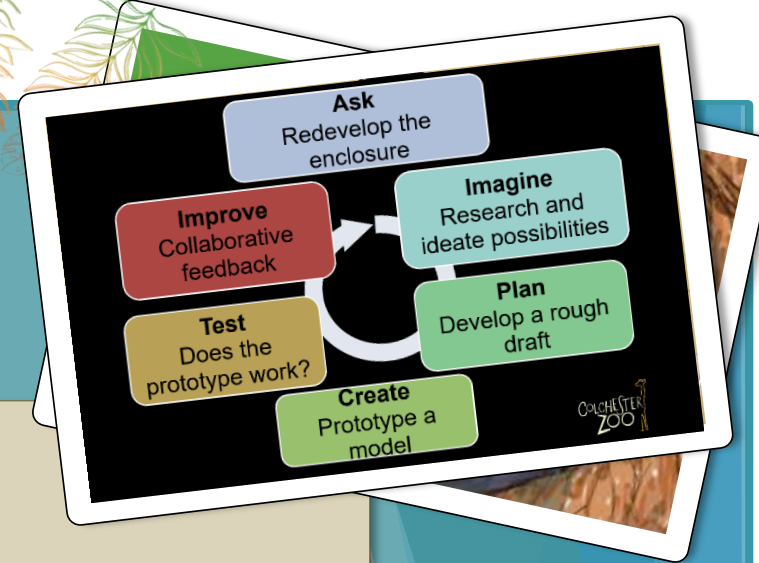
At the end of the session:

- ✓ **All students** will be aware of some real-world applications of STEM within zoos
- ✓ **Most students** will be able to name specific technology used to help endangered species.
- ✓ **Some students** will understand how the STEM design process can be used to develop solutions to a variety of problems, including enclosure design.

Session Outline:

The session explores the secret science of zookeeping, discussing job paths and the role in detail, including nutrition, health care, and environmental monitoring. Students will engage in an interactive activity to assess and improve an early enclosure prototype, demonstrating the STEM design process.

The session concludes with examples of how zoos use STEM to save endangered species, focusing on genetics, DNA analysis, and Conservation Technology like GPS trackers, bioacoustics, AI, and crowdsourcing.



Curriculum Links

Careers

Biology

AQA: 4.6; 4.7

OCR: Topic B6

Edexcel: Topic 9

Design & Technology

AQA: 3.1; 3.3

OCR: Strand 1, 2, 4

Edexcel: Topic 1, 1.1;

1.2, 1.16