

Join the Dynamic Earth Space Agency (DESA) in their mission to explore our neighbouring planet Mars. Programme your Lego robot across our Martian landscape collecting samples for analysis of extra terrestrial life.

This cross-curricular workshop brings science, technology and mathematics together in a fun and innovative way. During this workshop your pupils will develop their understanding of the Earth's position within the universe by going on a voyage through our solar system, seeing each planet in turn on our state of the art Magic Planet. Focusing on missions to Mars, discussions on landing spacecraft are encouraged, before working in teams learning how to use the NXT software that programmes the Lego robots. The highlight of this workshop is when your pupils pilot their robot across our Martian landscape in pursuit of a Martian rock to analyse for signs of life.

This workshop enables pupils to:

Develop an interest, confidence and enjoyment in ICT skills that can be transferred and applied in different learning contexts.

Demonstrate a secure knowledge and understanding of the big ideas and concepts of the sciences.

Develop as a scientifically-literate citizen with a lifelong interest in the sciences.

Establish the foundation for more advanced learning and future careers in the sciences and technologies.

Gain the confidence and skills to embrace and use technologies now and in the future, at home, at work and in the wider community.

Broaden their understanding of the role that information and communications technology (ICT) has in Scotland and in the global community.

Broaden their awareness of how ideas in mathematics and sciences are used in engineering and technologies.

Develop an understanding of the concepts, principles and processes of mathematics and apply these in different contexts.

Understand the application of mathematics.

Interpret numerical information appropriately and use it to draw conclusions and make reasoned evaluations and informed decisions.

Apply skills and understanding creatively and logically to solve problems within a variety of contexts.

Appreciate how the imaginative and effective use of technologies can enhance the development of skills and concepts.

Curriculum for Excellence Experiences and Outcomes:

Planet Earth – Space

By observing and researching features of our solar system, I can use simple models to communicate my understanding of size, scale, time and relative motion within it. SCN 2-06a

By using my knowledge of our solar system and the basic needs of living things, I can produce a reasoned argument on the likelihood of life existing elsewhere in the universe. SCN 3-06a

Technologies – ICT to enhance learning

As I extend and enhance my knowledge of features of various types of software, I can apply what I learn in different situations. TCH 2-03a

Using appropriate software, I can work collaboratively to design an interesting and entertaining game which incorporates a form of control technology or interactive multimedia. TCH 2-09a

I enhance my learning by applying my ICT skills in different contexts across the curriculum. TCH 3-04a

Using appropriate software, I can work individually or collaboratively to design and implement a game, animation or other application. TCH 3-09a

I can use ICT effectively in different learning contexts across the curriculum to access, select and present relevant information in a range of tasks. TCH 4-03b

Numeracy and mathematics – Shape, position and movement

I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid. MTH 2-18a