**LEGO® Robotics – Secondary Edition**

|  |  |
| --- | --- |
| Workshop | LEGO® Robotics |
| Key Stage | Key Stage 3 (see footnote) |
| Recommended Age Group | 8-14 (see footnote) |
| PoS | Maths and Computing |
| Course Description | Bring Maths and Computing alive outside of the classroom. Through hands on approach, students get to complete a series of space challenges with their LEGO® MINDSTORMS Education Robots. Students develop and use their problem solving skills to learn Algorithms, Boolean, Sequences, & Inputs and Outputs, through building and de-bugging programmes. Maths concepts covered include estimation, measurement, precision and modelling |
| Duration | 45 Minutes |
| Equipment | Windows 7 ComputerLEGO® MINDSTORMS® Education EV3 Core SetLEGO® MINDSTORMS® Education EV3 Space Challenge SetLEGO® MINDSTORMS® Education EV3 Space Challenge Activity Pack |
| Capacity | 16 students |
| Lesson Objectives | * Students will demonstrate how to create a sequence of instructions (codes) using the MINDSTORMS® Software
* Students will demonstrate how to effectively transfer sequences of codes to their EV3 Robot and complete Space themed challenges to include:

Activating a Communications Tower / Rescuing a Mars Robot and Collecting Mars Rock Samples* Students will enhance their understanding of angles, estimation and measurements
* Students will understand the need for Computers and Robotics in the park and everyday life scenarios
 |

Footnote: Although these are guidelines, students at KS2 can complete these activities if suitable