

Year 6 Knowledge Organiser— Roving Robots



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Vocabulary

Key Vocabulary	Definition
Programme	a series of coded software instructions to control the operation of a computer or other machine.
Rover	a vehicle for driving over rough terrain, especially one driven by remote control over extraterrestrial terrain.
Robot	a machine capable of carrying out a complex series of actions automatically, especially one programmable by a computer.
Algorithm	a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.
Sequence	a particular order in which related things follow each other.
Lego	a construction toy consisting of interlocking plastic building blocks.
Sensor	a device which detects or measures a physical property and records, indicates, or otherwise responds to it.
Data	quantities, characters, or symbols on which operations are performed by a computer, which may be stored and transmitted in the form of electrical signals and recorded on magnetic, optical, or mechanical recording media
Troubleshoot	trace and correct faults in a mechanical or electronic system.
Sequential plan	performed or used in sequence.

Key Questions

What is a robot?

What features would an exploratory rover need to have to collect information from Mars?

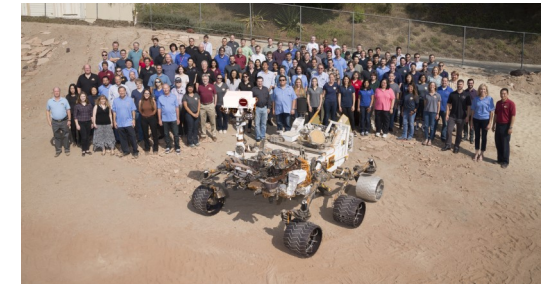
What functions will your rover have? What mechanisms will you need to include to create these functions?

Work Examples



Key Designers

Mars Curiosity Rover
Engineering Team
2004 -2011



Key Facts

NASA's Mars Science Laboratory mission set down a large, mobile laboratory — the rover Curiosity — at Gale Crater, using precision landing technology that made one of Mars' most intriguing regions a viable destination for the first time.

The NASA/JPL Mars Science Laboratory/ Curiosity Project Team was awarded the 2012 Robert J. Collier Trophy by the National Aeronautic Association "In recognition of the extraordinary achievements of successfully landing Curiosity on Mars, advancing the nation's technological and engineering capabilities, and significantly improving humanity's understanding of ancient Martian habitable environments."

Timeline

