

Energy Heroes!

Links to the 2014 National Curriculum in England.

The Energy Heroes! programme has been designed specifically to match the aims of the 2014 National Curriculum for England. Each of the 6 lessons is in support of particular aspects of the Aims and Purpose of Study listed below for Maths (Mainly *Number and Measures*) and Science (mainly *Working Scientifically*).

Numeracy and Mathematics:

Purpose of study

A high-quality mathematics education provides a foundation for understanding the world.

Aims

Pupils should apply their mathematical knowledge to science and other subjects.

Teachers should use every relevant subject to develop pupils' mathematical fluency.

Teachers should develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics.

Pupils should be taught to apply arithmetic fluently to problems, understand and use measures, make estimates and sense check their work.

Pupils should understand the cycle of collecting, presenting and analysing data.

Science

Purpose of study

A high-quality science education provides the foundations for understanding the world.

Pupils should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

Aims

Pupils should be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.



Here are the specific NC references to programmes of study in Year 5 which are also listed in each lesson plan.

Lesson One – Energy Matters

Numeracy and mathematics.

Number – Fractions. *Recognise the per cent symbol and understand that per cent relates to ‘number of parts per hundred’. Write percentages as a fraction with a denominator of 100. Write percentages as decimals.*

Statistics. *Complete information in tables.*

Science.

Working Scientifically. Recording data using tables.

Lesson Two – How Much?

Numeracy and mathematics

Number – Multiplication and division. *Solve problems involving multiplication. Multiply numbers of up to four digits by a one – or two – digit number. Solve addition and subtraction multi-step problems in contexts.*

Science

Working Scientifically. Reporting and presenting findings from enquiries.

Lesson Three – Day and Light

Numeracy and mathematics

Number. *Solve problems involving multiplication. Use all four operations to solve problems involving measure*

Science

Working Scientifically. *Recording data and results of increasing complexity.*

Lesson Four – Evil Standby

Numeracy and mathematics

Number. *Solve problems involving subtraction and finding the difference.* **Measurement.** *Use all four operations to solve problems involving measure.*

Science

To apply mathematical knowledge to understanding in science including collecting, presenting and analysing data.

Lesson Five – Be a Saver!

Numeracy and mathematics

Number – Addition and Subtraction. *Add and subtract whole numbers with more than four digits. Solve addition and subtraction multi-step problems in contexts.*

Science.

Working Scientifically. *To seek answers to questions through collecting, analysing and presenting data.*

Lesson Six – Magical Maths

Numeracy and mathematics

To make rich connections across mathematical ideas and to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. To apply their mathematical knowledge to science and other subjects.

Science

To understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.