



England National Curriculum Standards Alignment (N-Z)


The presentations offered by The Educated Choices Program provide support for teaching and learning of the following standards:

Physical Education, Key Stage 3 (Ages 11-14)		Environment and Modern Agriculture	Healthful Eating
Purpose of Study	<p>A high-quality physical education curriculum inspires all pupils to succeed and excel in competitive sport and other physically-demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness.</p> <ul style="list-style-type: none"> • Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect. • The national curriculum for physical education aims to ensure that all pupils: <ul style="list-style-type: none"> ○ Develop competence to excel in a broad range of physical activities. ○ Are physically active for sustained periods of time. ○ Engage in competitive sports and activities. ○ Lead healthy, active lives. 		
Aims			
	Subject content Key stage 3		

Attainment targets:

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

- Pupils should build on and embed the physical development and skills learned in key stages 1 and 2, become more competent, confident and expert in their techniques, and apply them across different sports and physical activities.
- They should understand what makes a performance effective and how to apply these principles to their own and others' work.
- They should develop the confidence and interest to get involved in exercise, sports and activities out of school and in later life, and understand and apply the long-term health benefits of physical activity.
- Pupils should be able to:
 - Use a range of tactics and strategies to overcome opponents in direct competition through team and individual games [for example, badminton, basketball, cricket, football, hockey, netball, rounders, rugby and tennis].
 - Develop their technique and improve their performance in other competitive sports [for example, athletics and gymnastics].
 - Perform dances using advanced dance techniques within a range of dance styles and forms.
 - Take part in outdoor and adventurous activities which present intellectual and physical challenges and be encouraged to work in a team, building on trust and developing skills to solve problems, either individually or as a group.
 - Analyse their performances compared to previous ones and demonstrate improvement to achieve their personal best.
 - Take part in competitive sports and activities outside school through community links or sports clubs.

Physical Education, Key Stage 4 (Ages 14-16)		Environment and Modern Agriculture	Healthful Eating
Key Stage 4	<p>Pupils should tackle complex and demanding physical activities. They should get involved in a range of activities that develops personal fitness and promotes an active, healthy lifestyle.</p> <ul style="list-style-type: none"> ● Pupils should be able to: <ul style="list-style-type: none"> ○ Use and develop a variety of tactics and strategies to overcome opponents in team and individual games [for example, badminton, basketball, cricket, football, hockey, netball, rounders, rugby and tennis] ○ Develop their technique and improve their performance in other competitive sports,[for example, athletics and gymnastics], or other physical activities [for example, dance]. ○ Take part in further outdoor and adventurous activities in a range of environments which present intellectual and physical challenges and which encourage pupils to work in a team, building on trust and developing skills to solve problems, either individually or as a group. ○ Evaluate their performances compared to previous ones and demonstrate improvement across a range of physical activities to achieve their personal best. ○ Continue to take part regularly in competitive sports and activities outside school through community links or sports clubs. 		

Science, Key Stage 3 (Ages 11-14)	Environment and Modern Agriculture	Healthful Eating	Future Food	
<p>Working scientifically</p> <ul style="list-style-type: none"> ● Subject content – Biology ● Subject content – Chemistry ● Subject content – Physics 	<p>Through the content across all three disciplines, pupils should be taught to:</p> <ul style="list-style-type: none"> ● Scientific attitudes <ul style="list-style-type: none"> ○ Pay attention to objectivity and concern for accuracy, precision, repeatability and reproducibility ○ Understand that scientific methods and theories develop as earlier explanations are modified to take account of new evidence and ideas, together with the importance of publishing results and peer review evaluate risks. ● Experimental skills and investigations <ul style="list-style-type: none"> ○ Ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience. ○ Make predictions using scientific knowledge and understanding ○ Select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables, where appropriate. ○ Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety. ○ Make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements. ○ Apply sampling techniques. 	✓	✓	✓

	<ul style="list-style-type: none"> ● Analysis and evaluation <ul style="list-style-type: none"> ○ Apply mathematical concepts and calculate results. ○ Present observations and data using appropriate methods, including tables and graphs. ○ Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions. ○ Present reasoned explanations, including explaining data in relation to predictions and hypotheses. ○ Evaluate data, showing awareness of potential sources of random and systematic error. ○ Identify further questions arising from their results. ● Measurement <ul style="list-style-type: none"> ○ Understand and use SI units and IUPAC (International Union of Pure and Applied Chemistry) chemical nomenclature. ○ Use and derive simple equations and carry out appropriate calculations. ○ Undertake basic data analysis including simple statistical techniques. 			
--	--	--	--	--

Science, Key Stage 4 (Ages 14-16)	Environment and Modern Agriculture	Healthful Eating	Future Food
--	---	-------------------------	--------------------

	The sciences should be taught in ways that ensure students have the knowledge to enable them to develop curiosity about the natural world, insight into working scientifically, and appreciation of the relevance of science to their everyday lives, so that students will be	✓	✓	✓
--	--	---	---	---

	<p>able to:</p> <ul style="list-style-type: none"> ● Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics; ● Develop understanding of the nature, processes and methods of science, through different types of scientific enquiry that help them to answer scientific questions about the world around them; ● Develop and learn to apply observational, practical, modelling, enquiry, problem-solving skills and mathematical skills, both in the laboratory, in the field and in other environments; ● Develop their ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively. 			
<p>Working scientifically</p> <p>Through the content across all three disciplines, students should be taught so that they develop understanding and first-hand experience of:</p> <p>Subject content – Biology Subject content – Chemistry Subject content – Physics</p>	<p>1. The development of scientific thinking</p> <ul style="list-style-type: none"> ● The ways in which scientific methods and theories develop over time. ● Using a variety of concepts and models to develop scientific explanations and understanding. ● Appreciating the power and limitations of science and considering ethical issues which may arise. ● Explaining everyday and technological applications of science; evaluating associated personal, social, economic and environmental implications; and making decisions based on the evaluation of evidence and arguments. ● Evaluating risks both in practical science and the wider societal context, including perception of risk. ● Recognising the importance of peer review of results and of communication of results to a range of audiences. 			

2. Experimental skills and strategies

- Using scientific theories and explanations to develop hypotheses.
- Planning experiments to make observations, test hypotheses or explore phenomena.
- Applying a knowledge of a range of techniques, apparatus, and materials to select those appropriate both for fieldwork and for experiments.
- Carrying out experiments appropriately, having due regard to the correct manipulation of apparatus, the accuracy of measurements and health and safety considerations.
- Recognising when to apply a knowledge of sampling techniques to ensure any samples collected are representative.
- Making and recording observations and measurements using a range of apparatus and methods.
- Evaluating methods and suggesting possible improvements and further investigations.

3. Analysis and evaluation

- Applying the cycle of collecting, presenting and analysing data, including:
 - Presenting observations and other data using appropriate methods.
 - Translating data from one form to another.
 - Carrying out and representing mathematical and statistical analysis.
 - Representing distributions of results and making estimations of uncertainty.

- Interpreting observations and other data, including identifying patterns and trends, making inferences and drawing conclusions
- Presenting reasoned explanations, including relating data to hypotheses.
- Being objective, evaluating data in terms of accuracy, precision, repeatability and reproducibility and identifying potential sources of random and systematic error.
- Communicating the scientific rationale for investigations, including the methods used, the findings and reasoned conclusions, using paper-based and electronic reports and presentations.

4. Vocabulary, units, symbols and nomenclature

- Developing their use of scientific vocabulary and nomenclature.
- Recognising the importance of scientific quantities and understanding how they are determined.
- Using SI units and IUPAC chemical nomenclature unless inappropriate.
- Using prefixes and powers of ten for orders of magnitude (e.g. tera, giga, mega, kilo, centi, milli, micro and nano).
- Interconverting units.
- Using an appropriate number of significant figures in calculations.