Ridgeway Academy

Year 8 Subject Map

Science

Subject	Science
Term	Autumn
Duration (Approx)	8 weeks
Module	NViz

Skills and concepts to be developed and assessed (linking to identified AOs)

Students learn: how climate change is part on a predictable process of atmospheric change that may lead to many different future scenarios for the Earth

- How theories are developed and validated
- What energy resources are available to the population of the Earth
- How energy transfers work, how to evaluate the efficiency of energy transfers and how desired energy transfers can be made more efficient
- How to use scientific knowledge and understanding in decision making processes

Factual knowledge to be taught and assessed (including subject specific vocabulary).

- 1.1a1 Scientific thinking: developing explanations using ideas and models
- 1.1b Applications, implications and cultural understanding
- 5.1 Changing environment and sustainability
- 4.1 Energy transfer
- AF 1 Theories
- AF 2 Decision making

Formative Assessment/key piece of work prior to end of unit:

Graded written work with constructive feedback

Summative Assessment:

End of unit tests

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

Pupils have explored scientific concepts whilst looking at chemical reactions, energy transfer in circuits, drawing graphs and using evidence to write conclusions

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Literacy: Vocabulary and definitions. Reinforce spellings by sorting out letter arrangement.
- Drafting work
- Accurate vocabulary / glossary use
- Word walls and lists

Link forward: where next for the learning?

Pupils will transfer skills and knowledge to other topics and subjects in the year 7 curriculum

Ridgeway Academy

Year 8 Subject Map

Science

Subject	Science
Term	Autumn
Duration (Approx)	8 weeks
Module	Forces

Skills and concepts to be developed and assessed (linking to identified AOs)

Describing motion: speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time), the representation of a journey on a distance-time graph, relative motion: trains and cars passing one another.

Forces: as pushes or pulls, arising from the interaction between two objects, using force arrows in diagrams, adding forces in one dimension, balanced and unbalanced forces, moment as the turning effect of a force, stretching and squashing – springs; with rubbing and friction between surfaces, with pushing things out of the way; resistance to motion of air and water, forces measured in newtons, measurements of stretch or compression as force is changed, gravity forces acting at a distance on Earth and in space, forces between magnets and forces due to static electricity.

Factual knowledge to be taught and assessed (including subject specific vocabulary).

Energy change, describing motion, forces, balanced forces.

Formative Assessment/key piece of work prior to end of unit:

Graded written work with constructive feedback

Summative Assessment:

End of unit tests

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

During year 5 pupils explored scientific concepts whilst looking at forces and using evidence to write conclusions.

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Literacy: Vocabulary and definitions. Reinforce spellings by sorting out letter arrangement.
- Drafting work
- Accurate vocabulary / glossary use
- Word walls and lists

Link forward: where next for the learning?

Pupils will transfer skills and knowledge to other topics and subjects in the year 8 curriculum.