**Curriculum Overview for Science**

**Year 7**

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| **Half Term 5: Land vs Sea****Substantive Knowledge:*** Discuss some of the pollution that human release.
* Describe how genetics are passed from parent to child
* Describe how animals and plants are adapted.
* Describe how objects can have different densities
* Explain why some objects float and other sink.
* Describe how tectonics plates move.
* Describe how sedimentary, igneous and metamorphic rocks are made.
* Describe how rocks are weathered and eroded.
* Describe the rock cycle.

**Disciplinary Knowledge:**Use of quadratsDraw a punnet square.**Can we Live on Mars?****Substantive Knowledge:*** Describe mass and weight

**Disciplinary Knowledge:*** Safe use of practical equipment.
* Use appropriate techniques, apparatus and materials during lab work/practical.
* Ask questions and develop a line of enquiry based on observations of the real world.
* Make and record observations.
 | Books | Model reading and highlighting to pick out key details, reading of data, Skim reading |
| Speech | PhotosynthesisRespirationGenesHaploidAdaptationNatural selectionExtinctionExtremophileSamplingQuadratConvection Igneous rockSedimentary rockMetamorphic rockWeathering ErosionDepositionCementationRock cycle |
| Checklist RTL | End of unit assessmentRecall Test |
| Home | Article Homework to promote reading like a scientistRevision for end of unit assessment |
| **Half Term 6: Can we Live on Mars?****Substantive Knowledge:*** Describe mass and weight
* Describe content of a healthy human balanced diet.
* Explain consequences of unbalanced diet.
* Describe photosynthesis and explain how to maximise it.
* Describe how to create pure substances (e.g potable water).
* Describe and explain simple techniques of separation.
* Describe the Earth and atmosphere (structure and composition).
* Explain which of the Earth’s resources we use most.
* Describe motion and forces using diagrams and graphs.
* Recognise when forces are balanced and unbalanced.
* Explain how resultant forces impact motion.
* Describe the Earth’s tilt, gravity and other features.
* Explain how the Earth’s features impact things like seasons, year length and day length.

**Disciplinary Knowledge:*** Safe use of practical equipment.
* Use appropriate techniques, apparatus and materials during lab work/practical.
* Ask questions and develop a line of enquiry based on observations of the real world.
* Make and record observations.
* Carry out food tests.
* Use separation techniques.

. | Books | Model reading and highlighting to pick out key details, reading of data, Skim reading |
| Speech | MassWeightForce diagramResultant forceDragSolar SystemExtra-terrestrialAtmosphereLivingResourceRespirationFood groupDietDeficiencyInhaleExhaleGlucosePhotosynthesisFertiliserYieldRatePureFood milesSustainablePopulationOveruse |
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