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| **S2 Broad General Education Plan – Breadth, Depth, Challenge and Skills** | | | | |
| (Pupils will work on a rotational basis through different topics throughout S2 covering each of the sciences) | | | | |
| **Biology** | | Chemistry | | Physics | |
| **Human Body**  **Learning and Teaching Focus: (Es and Os)**  In this topic pupils will explore many systems in the human body including reproductive, cardiovascular as well as looking at ways in which health is affected.  SCN 3-14a  SCN 3-12a | **Cell activities**  **Learning and Teaching Focus (Es and Os)**  In this topic, pupils will develop an understanding of the structure and variety of cells and their functions as well as functions within the cells. They will develop an understanding for how cells activities are affected by environmental changes.  SCN 3-14b  SCN 3-02a | **Acids and Alkali’s**  **Learning and Teaching Focus (Es and Os)**  This topic will investigate acids and alkali’s and where they are found in everyday life. They will investigate how different concentrations can impact acids and alkali’s and how solutions are made.  SCN 3-05b  SCN 3-18a  SCN 3-16b | **Atoms and atomic Structure**  **Learning and Teaching Focus (Es and Os)**  The Unit covers the key areas of atomic structure and bonding related to properties of materials. Learners will research issues, apply scientific skills and communicate information related to their findings, which will develop skills of scientific literacy.  SCN 3-15a  SCN 3-15b  SCN 3-16a | **Energy in all its forms**  **Learning and Teaching Focus (Es and Os)**  In this topic pupils will learn about energy and how it is transferred. They will complete practical experiments to demonstrate this and examples of the different forms of energy in everyday life.  SCN 3-04a  SCN 3-05a | **Unlimited Power**  **Learning and Teaching Focus (Es and Os)**  In this topic pupils will undergo a basic introduction to electronics learning how to construct a circuit and how modern technology impacts our lives.  SCN 3-09a |
| **Assessment Approach and evidence gathered:**  Scientific write up investigating heart rate through change of exercises.  End of topic summative assessment answering questions on their knowledge as well as assessing their scientific and numeracy skills through graph drawing. | **Assessment Approach and evidence gathered:**  Pupils will complete numerous practical activities which will lead to them independently writing up an investigation factors which affect the rate of photosynthesis in a plant.  Pupils will also complete a research project on stem cells, this will be assessed based on poster/PowerPoint/leaflet created. | **Assessment Approach and evidence gathered:**  Pupils will create a PowerPoint presentation on acid rain, they will have to collect the data and present this in a scientific way. | **Assessment Approach and evidence gathered:**  End of topic summative assessment answering questions on their knowledge as well as assessing their scientific and numeracy skills through graph drawing. | **Assessment Approach and evidence gathered:**  Pupils will complete numerous practical activities which will lead to them independently writing up a lab report on conduction of heat.  End of topic summative assessment answering questions on their knowledge as well as assessing their scientific and numeracy skills through graph drawing. | **Assessment Approach and evidence gathered:**  Pupils will complete numerous practical activities which will lead to them independently writing up an investigation.  Pupils will also complete a research project on energy generation types, this will be assessed based on poster/PowerPoint/leaflet created |
| **Feedback linked to benchmarks**  Pupils will identify strengths and areas for development based on passport. | **Feedback linked to benchmarks**  Pupil self-evaluation of write-up as well as learner conversations. Peer-assessed presentations. | **Feedback linked to benchmarks**  Peer assessment and feedback on acid rain presentations. | **Feedback linked to benchmarks**  Test feedback. Written feedback on element profile. Peer assessment of completed PT. | **Feedback linked to benchmarks**  Written feedback and learner conversations relating to assessed tasks. | **Feedback linked benchmarks**  Test feedback and learner conversations |
| **Key Skills : Literacy/Numeracy/ HB/Digital Literacy**  **LIT 2-24a**  **MNU 2-11a**  **MNU 3-20a**  **HWB 3-16a** | **Key Skills : Literacy/Numeracy/ HWB/Digital Literacy**  Carried out investigation and draw conclusions from data (MNU 3-20a)  Using new digital technologies, (TCH 3-01a) | **Key Skills : Literacy/Numeracy/ HWB/Digital Literacy**  Work collaboratively and uses appropriate register (LIT3-02a)  Carried out investigation and draw conclusion (MNU 3-20a)  Explore a range of media and technologies to create objects (EXA 2-20a) | **Key Skills : Literacy/Numeracy/ HWB/Digital Literacy**  **Literacy:** Shares information and opinions with others. Participates fully in group discussion. Makes inferences and deductions with appropriate justification. Presents information and ideas with supporting evidence. Summarises information using own words.  **Numeracy** Sources information or collects data making use of digital technology.Determines trends in data.Applies knowledge of collecting, organising and communicating information.  **HWB** Working as part of a group. | **Key Skills : Literacy/Numeracy/ HWB/Digital Literacy**  Pupils will develop **Literacy skills** by investigating and presenting ideas of the possibility of life on other planets. Also by challenging stereotypes.  Pupils will develop  **Numeracy** **and**  **problem solving skills** when performing calculations relating to the relationship between weight, mass & gravity.  **HWB** Working as part of a group.  **TCH 3-02a**  **LIT 3-02a LIT 3-05a**  **LIT 3-25a MNU 3-20a** | **Key Skills : Literacy/Numeracy/ HWB/Digital Literacy**  **HWB 3-15a**  **HWB 3-28a**  **TCH 3-02a**  **MNU 3-20a** |
| **Skills for learning, work and life**  **\*** | **Skills for learning, work and life**  **\***  Pupils will look at the world of work in the STEM subjects using the development of the Bloodhound SVR project. | **Skills for learning, work and life**  **\***  Pupils will develop skills in team work and leadership by sharing tasks and responsibilities.  The ability to communicate in different ways and use technology for learning. | **Skills for learning, work and life**  **\***  Pupils will develop skills in team work and leadership by sharing tasks and responsibilities.  The ability to communicate in different ways.  Working with others.  Problem solving. | **Skills for learning, work and life**  **\***  Pupils will develop skills in team work and leadership by sharing tasks and responsibilities.  Develop communication skills, working with others when investigating and presenting ideas of the possibility of life on other planets.  They will look at the world of work when they challenge stereotypes in STEM careers (women in Science). | **Skills for learning, work and life**  **\***  Gaining an understanding on how to improve and maintain a healthy lifestyle.  SFW: Insight in to Sports Science and nutrition. |

**\*- Across all topic areas in S2 pupils will develop their skills in working with others, physical co-ordination and thinking skills (analyse, evaluate and apply) through practical experiences.**