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| **YEAR \_\_\_\_ 2023-2024 \_\_\_\_\_ TERM**  **‘An ambitious curriculum that meets the needs of all’**  **Medium Term Planning - Topic: Health and Disease** | |
| **Curriculum Intent** | **In addition to working further on objectives from KS2 and the Cells topic, pupils will be taught, following National Curriculum guidelines, the following this topic:**   * To know about pathogens and vaccinations * To know about communicable and non-communicable diseases * The body’s defence system primary and secondary * Blood glucose – diabetes |
| **Skills/National Curriculum Links** |
| **Spiritual, moral, social, and cultural development** | **SMSC:**  Enable students to develop their self-knowledge of their own body.  **PSHE/British Values:** Chemical reactions occur in all forms of life such as toothpaste and bee stings. Students will complete teamwork, leadership and put science into everyday situations. They will show mutual respect during classwork.  **Skills Builder:** Listening (Receiving, retaining and processing info), Speaking (The oral transmission of info and ideas), Problem solving (Find a solution to a situation or challenge), Creativity (imagination and generation of new ideas), Staying positive (The ability to use tactics and strategies to overcome setbacks), aiming high (Set clear and tangible goals), Leadership and teamwork |
| **Numeracy** | Number of bacteria growth, use of tables, interpretation of graphs |
| **Literacy** | **Vocabulary Tier 2: compare, disease, blood, diet, primary, secondary, defence**  **Vocabulary Tier 3: diabetes, glucose, communicable, non-communicable, micro-organisms, pathogens, bacteria, virus, fungi, diabetes, antibiotic, pennicillin**  **Reading:** Following a written method and read risk assessments.Students may be directed to the textbook; this could be in lesson or at home on Kerboodle.  **Writing:** Describing and explaining scientific phenomenon, free response writing for describing precautions taken, use of word mat to promote sentence formation.  **Oracy:** inclusion of BEST resources which are research evidence on common misunderstandings in science, effective diagnostic questioning and formative assessment, constructivist approaches to building understanding, and effective sequencing of key concepts that promote metacognitive talk and dialogue. |
| **Becoming future ready** | **Careers/Employability:**   * *Nurse* * *Doctor* * *Microbiologist* * *Pharmacist* |
| **Adaptation** | Throughout this topic, quality first teaching will provide differentiation:  **By product:** Linear assessments and differentiated practical work.  **By resource:**  Lessons are differentiated per class and students, worksheets are coloured blue if support and assessments are linear.  **By Intervention**: by providing different levels of supervision and support  **By Progressive Questioning:** exploring pupils’ understanding through interactive dialogue.  **By Grouping:** according to prior attainment, gender, social preference, preferred learning style.  **By Task:**Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range.  **By Offering Optional Activities:** In class or as homework, to extend learning.  This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work. |
| **QFT/SEND Provision** |
| **Implementation**  **Curriculum Delivery** | To be able to:   |  | | --- | | *Know*  *- State one potential problem for someone with an unhealthy diet.*  *- State that different people require different amounts of energy.*  *- Collect experimental data and record observations.*  *Apply*  *- Describe some health issues caused by an unhealthy diet.*  *- Calculate the energy requirements of different people.*  *- Collect experimental data and draw conclusions from results obtained.*  *Extend*  *- Explain how an unhealthy diet causes health issues.*  *- Explain that different people require different amounts of energy, using energy calculations and data to support explanations.*  *- Interpret experimental data and suggest ways to improve the experiment.* | | *Know*  *- State what a non-communicable disease is*  *Apply*  *- Describe some health issues caused by non-communicable diseases*  *Extend*  *- Explain how non-communicable diseases can affect our body/health* | | *Know*  *- State the different micro-organisms when talking about disease*  *Apply*  *- Describe some health issues caused by communicable diseases*  *Extend*  *- Explain how communicable diseases can affect our body/health* | | *Know*  *-know that painkillers can be used to treat symptoms but do not kill pathogens*  *- know that antibiotics can be used to treat bacterial pathogens but do not destroy viruses*  *- know about the discovery of penicillin*  *Apply*  *- know that painkillers can be used to treat symptoms but do not kill pathogens and explain what a pathogen is*  *- Know that antibiotics can be used to treat bacterial pathogens but do not destroy viruses*  *- know about the discovery of penicillin and explain what penicillin is*    *Extend*  *-be able to explain why painkillers are only used to treat symptoms but not kill pathogens*  *- be able to explain how antibiotics kill bacteria*  *- be able to explain the worldwide importance of antibiotics* | | *Know*  *-know that hormones are involved in controlling blood glucose*  *- understand that there are two types of diabetes*  *- know how diabetes can be treated*  *Apply*  *-know that hormones are involved in controlling blood glucose and be able to name insulin*  *- understand that there are two types of diabetes and be able to name type I and type II*  *- know how diabetes can be treated*  *Extend*  *-know that hormones are involved in controlling blood glucose and name insulin and glucagon*  *- understand that there are two types of diabetes and be able to compare and contrast type I & II*  *- know how type I and II are treated* | | *Know*   * *Know that the body has primary defences* * *Understand that the white blood cells role is*   *Apply*   * *Be able to explain what the primary denfences are* * *Be able to describe what the white blood cells do*   *Extend*   * *Be able to explain what would happen if certain denfences are breeched.* * *Be able to explain the role of the phagocytes and lymphocytes* | |
| **Learning Outcomes (Core Knowledge)** |
| **Current learning to be developed in the future within:** | |  |  | | --- | --- | | ***Before:***In KS2 you already know that diet, exercise, drugs and lifestyle have an impact on the way that the human body functions. | ***Future:*** *GCSE topic Immunology will look at communicable disease and the immune response. Health issues will explore non-communicable disease further.* | |
| **Assessment** | Refer to assessment maps for formative and summative assessment opportunities. |
| **Impact** | Attainment and Progress – Refer to assessment results / data review documentation. |

