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| **YEAR \_\_\_\_ 2023-2024 \_\_\_\_\_ TERM**  **‘An ambitious curriculum that meets the needs of all’**  **Medium Term Planning - Topic: Digestion** | |
| **Curriculum Intent** | **In addition to working further on objectives from KS2, pupils will be taught, following National Curriculum guidelines, the following this topic:**  Nutrition and digestion   * content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed * calculations of energy requirements in a healthy daily diet   § the consequences of imbalances in the diet, including obesity, starvation and deficiency diseases – this is in health and disease   * the tissues and organs of the human digestive system, including adaptations to function and how the digestive system digests food (enzymes simply as biological catalysts) |
| **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:**  Damage to any of these systems can be debilitating if not fatal. Although there has been huge progress in surgical techniques many interventions would not be necessary if individuals reduced their risks through improved diet and lifestyle.  **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** | Data on food labels, working out balanced diets in K/Cal and Kg |
| **Literacy** | **Vocabulary Tier 2:** Components, compare, excesses, provide, released, damage, essential, maintain, source, constantly, translucent, colourless, structure, absorb,  **Vocabulary Tier 3:** Nutrient, carbohydrate, lipid, protein, vitamin, mineral, dietary fibre, balanced diet, constipation, food test, hypothesis, digestive system, digestion, oesophagus, stomach, small intestine, large intestine, rectum, anus, villi, blood capillaries, gut bacteria, enzyme, catalyst, carbohydrase, protease, lipase, bile.  **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:**   * *Nutritionist* * *Doctor* * *Nurse* * *Chemist* * *Surgeon* |
| **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*  *- Name some nutrients in a given diet.*  *- Name the nutrients required by the human body.*  *- Extract nutritional information from food packaging.*  *Apply*  *- Describe the components of a healthy diet.*  *- Explain the role of each nutrient in the body.*  *- Interpret nutritional information on food packaging to identify a healthy food.*  *Extend*  *- Explain what makes a food a healthy option.*  *- Explain how each nutrient contributes to a healthy, balanced diet.*  *- Interpret nutritional information to make health comparisons between foods.* | | *Know*  *- State that food can be tested for starch, lipids, sugar, and protein.*  *- State that food tests show colour changes.*  *- Use appropriate techniques to carry out a food test safely.*  *Apply*  *- Describe how to test foods for starch, lipids, sugar, and protein.*  *- Describe the positive result for each food test.*  *- Use appropriate techniques to carry out a range of food tests safely.*  *Extend*  *- Explain why testing food for starch, lipids, sugar, and protein is important.*  *- Explain the meaning of positive or negative results in terms of the food tests.*  *- Use appropriate techniques to carry out a full range of food tests safely, interpreting the findings, and relating them to everyday situations.* | | *Know*  *- Name the main parts of the digestive system.*  *- State what is meant by digestion.*  *- Identify the main structures in the digestive system on a model.*  *Apply*  *- Describe the structure and function of the main parts of the digestive system.*  *- Describe the process of digestion.*  *- Give a structured account of digestion.*  *Extend*  *- Explain how each part of the digestive system works in sequence, including adaptations of the small intestine for its function.*  *- Explain why food needs to be digested.*  *- Give a detailed explanation of digestion in sequence.* | | *Know*  *- Name some enzymes used in digestion.*  *- State where bacteria are found in the digestive system.*  *- Record measurements from an experiment.*  *Apply*  *- Describe the role of enzymes in digestion.*  *- Describe the role of bacteria in digestion.*  *- Record experimental data using a suitable results table.*  *Extend*  *- Explain how enzymes affect the rate of digestion.*  *- Explain how some bacteria improve health.*  *- Record experimental data using a suitable results table, and evaluate the quality of the data obtained.* | | *Apply*  *-Carry out an investigation to find out what temperature milk digests best at using Trypsin* | |
| **Learning Outcomes (Core Knowledge)** |
| **Current learning to be developed in the future within:** | Before: At KS2 You should have also recognised the impact of diet, exercise, drugs and lifestyle on the way their body functions and describes the ways in which nutrients and water are transported within animals, including humans.,  Future: At GCSE you will learn about the human digestive system which provides the body with nutrients You will learn how it provides dissolved materials that need to be moved quickly around the body in the blood by the circulatory system. |
| **Assessment** | Refer to assessment maps for formative and summative assessment opportunities. |
| **Impact** | Attainment and Progress – Refer to assessment results / data review documentation. |

