**OPA Curriculum Explained – Year 7 Science**

**What will my child be learning in Spring Term 2024**

*(Thursday 4th January 2024 to Thursday 28th March 2024)*

**Year 7 Science Spring Term Curriculum Focus**

|  |  |  |
| --- | --- | --- |
| **Term** | **Topic** | |
| **2A** | **Biology Unit:**  Structure and function of body systems   * Gas exchange * Breathing * Skeleton * Muscles and joints | **Chemistry Unit**:  Reactions   * Word equations * Oxidation reactions * Exothermic and endothermic reactions |
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| **2B** | **Physics Unit:**  Sound   * Waves * Loudness and pitch * Echoes * Ultrasound | **Biology Unit:**  Reproduction   * Adolescence * The menstrual cycle * Flowers and pollination |
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**Year 7 Science Spring Term Assessment Focus**

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| --- | --- |
| Dates | Assessment |
| Weeks 1-7  Weeks 10-12 | End of topic test for each unit |
| Weeks 7-9 | End of term Exam |

**Year 7 Spring Term Science Homework Focus**

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| --- | --- |
| Week | Home learning Focus |
| Week 1 -3 | Human Skeleton; Muscles and Gas Exchange in Humans |
| Week 4-6 | Chemical Equations and Chemical Reactions |
| Week 7-8 | Sound Waves; Travelling Sound Waves and Detection of Sound Waves |
| Week 9 -11 | Human Reproductive Systems; Menstruation, Gestation and Birth and Plant Reproduction |

**OPA Curriculum Explained – Year 8 Science**

**What will my child be learning in Spring Term – 2024**

*(Thursday 4th January 2024 to Thursday 28th March 2024)*

**Year 8 Science Spring Term Curriculum Focus**

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| **Term** | **Topic** | |
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| **Term 2A** | **Physics Unit:**  Electricity and magnetism   * Circuits * Resistance * Magnets and Electromagnets | **Biology Unit:**  Inheritance   * Variation * Inheritance * Natural selection * Extinction |
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| **Term 2B** | **Chemistry Unit**:  The Periodic Table   * Elements * Metals and non-metals * Groups in the periodic table | **Biology Unit:**  Biological processes   * Structure of leaves * Photosynthesis * Respiration |
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| Dates | Assessment |
| Weeks 1-7  Weeks 11-12 | End of topic test for each unit |
| Weeks 8- 10 | End of term Exam |

**Year 8 Science Spring Term Assessment**

**Year 8 Science Spring Term Homework**

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| **Dates** | **Homework** |
| Date set 04-01-2024  Date due deadline 14-01-2024 | Electric Current; Potential Difference and Resistance and Measuring Resistance |
| Date set 16-01-2024  Date due deadline 29-01-2024 | Periodic Table; Reaction Patterns in Periodic Table and Metals and Non-metals |
| Date set 23-01-2024  Date due deadline 09-02-2024 | Inheritance; Variation and Competition |
| Date Set 04-03-2024  Date due deadline 18-03-2024 | Photosynthesis; Life Depends on Photosynthesis and Adaptations of leaves |

**OPA Curriculum Explained – Year 9 Science**

**What will my child be learning in Spring Term – 2024**

*(Thursday 4th January 2024 to Thursday 28th March 2024)*

|  |  |  |
| --- | --- | --- |
| **Term** | **Topic** | |
| **Term 2A** | **Biology Unit:**  Cell Division   * Cell Division * Stems cells * Issues with stem cells | **Chemistry Unit**:  The Periodic Table   * Electronic structures * Patterns and trends in the groups * Group 1 and Group 7 |
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| **Term 2B** | **Physics Unit:**  Energy transfer by heating   * Conduction * Specific heat capacity * Insulating buildings | **Biology Unit:**  Food and Digestion   * The human digestive system * Enzymes |
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| Dates | Assessment |
| Weeks 1-8 | End of topic test for each unit |
| Weeks 9- 11 | End of term Exam |

**Year 9 Science Spring Term Assessment Focus**

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| --- | --- |
| **Dates** | **Homework** |
| Date set 03-01-2024  Date due deadline 12-01-2024 | Cell specialisation and Cell division |
| Date set 15-01-2024  Date due deadline 29-01-2024 | The periodic table; Group 1 and Group 7 |
| Date set 29-01-2024  Date due deadline 12-02-2024 | Energy changes in systems |
| Date set 22-01-2024  Date due deadline 11-02-2024 | Human digestive enzymes |

**Year 9 Science Spring Term Homework**

**OPA Curriculum Explained – Year 10 Science**

**What will my child be learning in Spring Term 1 – 2024**

*(Thursday 4th January 2024 to Thursday 28th March 2024)*

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| --- | --- | --- | --- |
| Week | Topic | | |
| Biology | Chemistry | Physics |
| Term 2A | **Unit:**  Preventing and treating disease   * Vaccination * Antibiotics * Drugs | **Unit**:  Electrolysis   * Electrolysis of molten compound * Electrolysis of aqueous solution * Extraction of aluminium | **Unit:**  Radioactivity   * Atomic structure * Nuclear radiation * Half-life |
| Term 2B | **Unit:**  Non-communicable disease   * Cancer * Lifestyle and risk factors   **Unit:**  Bioenergetics   * Photosynthesis * Respiration | **Unit:**  Energy changes   * Exothermic vs Endothermic reaction * RP: Temperature change * Bond energy |

**Year 10 Science Spring Term Assessment Focus**

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| Dates | Assessment |
| Weeks 1-5 | End of topic test for each unit |
| Weeks 5-6 | End of half term exam |
| Weeks 7-10 | End of topic test for each unit |
| Weeks 11-12 | End of half term exam |

**Year 10 Science Spring Term Homework**

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| --- | --- |
| **Term Dates** | **Homework** |
| Weeks 1-6 | * Preventing infection * Antibiotics, Painkillers and drugs * Electrolysis 1 * Electrolysis 2 * Atoms and isotopes * Radiation and radioactive contamination |
| Weeks 7-12 | * Non-communicable diseases * Exothermic and Endothermic reaction * Energy changes of reaction * Photosynthesis * Aerobic and Anaerobic respiration * Exercise and metabolism |

\*Science home learning is set on Educake (educake.co.uk) and by the classroom teacher on specific tasks.

\*Home Learning is designed to recap previous knowledge, to consolidate current learning or to create curiosity or preparedness for future learning.