Overview of the year topics which link into the Oak National Academy lessons so if there are any local lock downs due to COVID-19, students will still continue their learning. The lessons link will be put onto SMHK and work will be returned to the school teacher.

These do not fit our Schemes of Work exactly and are as close as fit as possible.

Year 6

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Introduction To Science Science skills Home learning in case of COVID outbreak: Practical skills, KS2 1. What is a variable 2. How do you draw a scientific diagram? 3. Why is a method important? 4. What can we do with the data we collect? 5. How can we communicate our results?	Electricity Magnets Home learning in case of COVID outbreak: 8PE Electricity and Magnetism 1. Circuit symbols 2. Current 3. Series and parallel circuits 8. Magnetic fields	Cells, Tissues and Organs. Healthy Eating Home learning in case of COVID outbreak: Human anatomy, KS2 1. What are organs and why do we need them? 2. What are the major bones in the human body? 3. How does human anatomy compare to other animals? 4. Are all teeth the same? 5. How is oxygen transported around our bodies?	The Periodic Table Forces 1 Home learning in case of COVID outbreak: 7CP Particles 7. Separating mixtures 8. Rock salt 9. Distillation 10. Chromatography 11. Solubility 12. Solubility practical 13. Particles revision Forces, KS2 1. What are forces? 2. How can we measure the size of forces? 3. What are contact forces?	Light Particles and Solutions Home learning in case of COVID outbreak: Light and dark, KS2 1. What is light? 2. How can we see objects? 3. What is the difference between night and day? 4. What materials are reflective? 5. How are shadows formed?	Adapting to the environment Home learning in case of COVID outbreak: Adaptations, KS2 1. What is an adaptation? 2. How are organisms adapted to hot environments? 3. How are organisms adapted to cold environments? 4. What adaptations do

6. How can we record an entire investigation?		6. How do humans digest food?	4. What are non-contact forces? 5. What factors affect an object's ability to float? 6. What impact do gears, levers and pulleys have on forces?	6. How can you change the size of a shadow? Light, KS2 1. What is light and where does it come from? 2. What is reflection and how can we use it? 3. What is refraction and how can we use it? 4. How do we see light? 5. Where do different colours come from? 6. What are some uses of light? States of matter, KS2 1. What are the properties of solids, liquids and gases? 2. How do particles behave inside of solids,	nocturnal animals have? 5. How are organisms adapted to live underwater? 6. How do adaptations compare across different environments? Ecosystems, KS2 1. What is an ecosystem? 2. How can we classify the diets of animals? 3. Why are producers so important? 4. How do we construct a food chain? 5. How do we construct a food web? 6. What can cause disruption to food webs?

				liquids and gases? 3. What happens when you heat or cool each state of matter? 4. What are changes of state and why do they take place? 5. How can we measure the melting points and boiling points of a substance? 6. What substances do not fit into one state of matter?	

Year 7

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Organisms Earth	Matter Reactions	Energy Waves	Genes	Ecosystems	Forces 2 Electromagnets
Home learning in case of COVID outbreak: 8CM Materials and the Earth 1. Structure of the Earth 2. Igneous Rock 3. Sedimentary rocks 4. Metamorphic rock and the rock cycle 5. Fossils 7BC Cells, tissues and organs 1. Microscopes 2. Unicellular organisms 3. Diffusion investigation 4. Diffusion analysis 5. Plant cells 6. Plant organs	Home learning in case of COVID outbreak: 7CP Particles 1. Solids, liquids and gases 2. Diffusion 3. Changes of state 4. Gas pressure 5. Conservation of mass 6. Pure and 1. impure substances 7CC Chemical reactions 1. Indicators of chemical reaction 2. Oxidation 3. Acids and alkalis 4. pH scale	Home learning in case of COVID outbreak: 7PE Energy 1. Energy stores and transfers 2. Energy and power 3. Power in the home 4. Energy in Food 1 5. Energy in Food 2 6. Finite energy resources 7. Renewable energy resources 8PL Light and Space 1. Properties of light 2. The electrical and chemical effects of light 3. Reflection 4. Reflection 5. Refraction 6. The eye 7. Vision	Home learning in case of COVID outbreak: 7BR Reproduction 1. Human reproductive system 2. Fertilisation 3. Gestation 4. Pregnancy and birth 5. Puberty and the menstrual cycle 8. Variation between species 9. Variation within a species 10. Reproduction and variation revision	Home learning in case of COVID outbreak: 8BE Ecological relationships and classification 1.Food chains and webs 2. Decay 3. Interdependence 4. Estimating populations 5. Random sampling 6. Classification 7. Competition 8. Natural selection 9. Evolution evidence 10. Biodiversity 11. Ecology revision 7BR Reproduction 6. Plant reproduction	Home learning in case of COVID outbreak: 7PF Forces 1. Introduction to forces 2. Force diagrams and resultant forces 3. Gravity 4. Weight 5. Investigating speed 6. Friction and moving objects 7. Speed 8. Distance-time graphs 9. Forces revision 8PE Electricity and Magnetism 4. Potential difference

7. Animal cells 8. Comparing cells 9. Specialised cells	5. Metal and acid reactions 6. Neutralisation 7. Simple titration 8. Antacid investigation 9. Antacid analysis 9CR Reactivity 1. Reactions of metals with acids 2. Reactions of metal oxides with acids 3. Reactions of metal carbonates with acids 4. Making salts 1 5. Making salts 2 6. Reactivity series 7. Metal ores 8. Displacement	8. Spectrum of light 9. Colours		7. Seed dispersal	5. Resistance 6. Resistance investigation 7. Static electricity 8. Magnetic fields 9. Electromagnets 10. Electromagnet investigation 11. Electromagnet uses and motors 12. Electricity and magnetism revision

Year 8

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Forces 3 **Electromagnets 2** Home learning in case of COVID outbreak: 7PF Forces 5.Pressure 9PF Forces in action 1. Levers 2. Moments 3. Work done 4. Simple machines 5. Hooke's law 6. Hooke's law analysis 7. Forces in action revision 8PE Electricity and Magnetism 9. Electromagnets 10. Electromagnet investigation 11. Electromagnet uses and motors 12. Electricity and magnetism revision	**Energy 2** **Waves 2** Home learning in case of COVID outbreak: 7PE Energy 3. Efficiency 4. Conduction 5. Convection 6. Radiation 7. Radiation practical 8. Insulation 9PS Sound waves 1. Sound waves 2. Pitch and loudness 3. Speed of sound 4. Hearing 5. Ultrasound 6. Sound devices 7. Sound waves revision	**Matter 2** **Reactions 2** Home learning in case of COVID outbreak: 8CP Atoms and the periodic table 1.Elements 2. Atoms 3. Metals and non-metals 4. Compounds 5. Chemical formulae 6. Making compounds 7. Conservation of mass 8. Group 1 9. Group 7 10. Atoms and the periodic table revision. 9CR Reactivity 9. Electron configuration 10. Ions 11. Balancing equations 12. Metal uses and alloys 13. Reactivity and potential difference. 14. Reactivity revision	**Earth 2** **Organisms 2** Home learning in case of COVID outbreak: 8CM Materials and the Earth 8. Crude Oil 9. Earth's atmosphere and the carbon cycle 10. The greenhouse effect 11. Ceramics, polymers and composites 12. Materials and the earth revision 8BD Digestion 1. Healthy Diet 2. Unhealthy Diet 3. Energy release 4. Carbohydrates 5. Protein 6. Organs of the digestive system and their adaptations 7. Enzymes 8. Effect of temp on enzyme	**Genes 2** Home learning in case of COVID outbreak: 9BB Biological systems and processes 1. Musculoskeletal system 2. Muscles 3. Effects of smoking 4. Effects of alcohol 5. DNA 6. Inheritance 7. Biological systems and processes revision	**Ecosystems 2** Home learning in case of COVID outbreak: 9BB Biological systems and processes 1. Adaptations of respiratory system 2. Breathing 3. Effects of exercise and respiration 9BP Plants and photosynthesis 1.Rocks 2.Photosynthesis 3. Uses of sugar 4. Rate of photosynthesis 5. The leaf 6. Transport in plants 7. Carbon cycle 8. Plants as food

		9CE Energetics 1. Measuring rate 2. Analysing rates 3. How concentration affects rate 4. How surface area affects rate 5. Catalysts 6. Energy changes 7. Combustion 8. Thermal decomposition 9. Energetics revision	9. Digestion and nutrition revision 7BC Cells, tissues and organs 10. Organisation and organ systems 11. Organs of the digestive system 12. Organs of the respiratory system 13. Breathing 14. Cells, tissues and organs revision		9. Plants and photosynthesis revision 10. Assessment 11. Review 2.

Year 6

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Introduction To Science Science skills	Electricity Magnets	Cells, Tissues and Organs. Healthy Eating	Light Particles and Solutions	The Periodic Table Atoms, elements and compounds	Adapting to the environment Forces 1

Year 7

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6

Organisms Earth *Earth structure and Universe* *Movement and cells*	Matter Reactions *Particle model and separating mixtures* *Metals and non-metals and* *Acids and Alkalis*	Energy Waves *Energy Costs and Energy Transfer* *Sound and Light*	Genes *Variation and Human reproduction*	Ecosystems *Interdependence and Plant reproduction*	Forces 2 Electromagnets *Speed and gravity* *Voltage and Resistance and Current*

Year 8

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Forces 3 Electromagnets 2 *Contact forces and Pressure* *Magnetism and Electromagnetism*	Energy 2 Waves 2 *Work and Heating and cooling*	Matter 2 Reactions *Periodic table and Elements* *Chemical energy and Types of reaction*	Earth 2 Organisms 2 *Climate and Earth resources* *Breathing and Digestion*	Ecosystems 2 *Respiration and Photosynthesis*	Genes 2 *Evolution and Inheritance*

	Wave effects and Wave properties				