Term	HT	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn	HT1	**B1 Cell Structure and Transport** • cells as the basic structural unit of all organisms • adaptations of cells related to their functions • the main sub-cellular structures of eukaryotic and prokaryotic cells				**B2 Cell Division** • the need for cells to divide • stem cells in animals and meristems in plants		
		1. Recap 2. The world of the microscope 3. Animal and plant cells 4. RP – looking at cells	1. Eukaryotic & prokaryotic cells 2. Specialisation in animal cells 3. Specialisation in plant cells 4. Diffusion	1. Osmosis 2. Osmosis in plants 3. RP – osmosis in plant cells 4. Active transport	1. Exchanging materials 2. Assessment 3. Recap 4. Cell division	1. Growth and division 2. Stem cells 3. Stem cell dilemma 4. Progress check	1. Feed forward 2. Recap 3. Atoms 4. Chemical equations	
	HT2	**C1 Atomic Structure** • separation techniques • atomic structure		**C2 The Periodic Table** • trends in groups of periodic table • layout of periodic table		**P7 Radiation** • radioactive decay, changing elements and isotopes. • types of ionizing radiation – alpha, beta and gamma.		**P6 Molecules and Matter** • heating & changing temperature & changing state
		1. Separating mixtures 2. Fractional distillation and paper chromat. 3. History of atom 4. Structure of the atom	1. Ions, atoms and isotopes 2. Electronic structures 3. Consolidation 4. Recap	1. Development of the periodic table 2. Electronic structures & periodic table 3. Group 1 4. Group 7	1. Explaining trends 2. Progress check 3. Feed forward 4. Recap	1. Atoms and radiation 2. Discovery of the nucleus 3. Changes in the nucleus 4. Alpha, beta and gamma radiation	1. Activity and half-life 2. Consolidation 3. Recap 4. Density	1. RP – density of solid & liquid 2. States of matter 3. Changes of state 4. Internal energy
Term	HT	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7

Term	HT	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Spring	HT3	**P6 Molecules and Matter (cont.)** • internal energy equals kinetic plus potential energies of particles in a substance		**B3 Organisation and the Digestive System** • the hierarchical organisation of multicellular organisms • enzymes and factors affecting rate of reactions			**B4 Organising Animals and Plants** • the structure and functions of blood and blood vessels	
		1. Specific latent heat 2. Gas pressure & temperature 3. Progress check 4. Feed forward	Assessment – cell biology, atomic structure, particle model	1. Recap 2. Tissues and organs 3. The human digestive system 4. The chemistry of food	1. RP – food tests 2. Catalysts and enzymes 3. Factors that affect enzyme action 4. How the digestive system works	1. RP – rate of enzyme-controlled reaction 2. Making digestion efficient 3. Consolidation 4. Recap	1. The blood 2. The blood vessels 3. The heart 4. Helping the heart	
	HT4	**B4 Organising Animals & Plants (continued)** • the structure and functions of the gas exchange system in humans		**C3 Structure and Bonding** • the properties associated with states of matter • bonding			**P1 Conservation and Dissipation of Energy** • the types of energy stores and their purpose	
		1. Breathing and gas exchange 2. Tissues and organs in plants 3. Transport systems in plants 4. Evaporation & transpiration	1. Factors affecting transpiration 2. Progress check 3. Feed forward 4. Recap	1. States of matter 2. Atoms into ions 3. Ionic bonding 4. Giant ionic structures	1. Covalent bonding 2. Structure of simple molecules 3. Giant covalent structures 4. Fullerenes and graphene	1. Bonding in metals 2. Giant metallic structures 3. Progress check 4. Feed forward	1. Recap 2. Changes in energy stores 3. Conservation of energy 4. Energy and work	

Summer	**HT5**	**P1 Conservation and Dissipation of Energy (continued)** • working out efficiency		**P2 Energy Transfer by Heating** •		**P3 Energy Resources** • •		
		1. Gravitational potential energy stores 2. Kinetic and elastic stores 3. Energy dissipation 4. Energy and efficiency	1. Electrical appliances 2. Energy and power 3. Consolidation 4. Recap	1. Energy transfer by conduction 2. RP – thermal insulators 3. Specific heat capacity 4. RP – specific heat capacity	1. Heating and insulating buildings. 2. Consolidation 3. Recap 4. Energy demands	1. Energy from wind and water 2. Power from the Sun and the Earth 3. Energy and the environment 4. Big energy issues	1. Progress check 2. Feed forward 3. 4.	
	HT6	**B5 Communicable Disease** • relationship between health and disease • communicable diseases including STI's in humans. • body defences against pathogens and the role of the immune system against diseases.			**B6 Preventing & Treating disease** • the process of discovery and development of new medicines • reducing and preventing the spread of infectious diseases		**B7 Non-Communicable Diseases** • non-communicable diseases	
		1. Recap 2. Health and disease 3. Pathogens and diseases 4. Preventing infections	1. Viral diseases 2. Bacterial diseases 3. Diseases caused by fungi and protists. 4.	1. Human defence responses 2. Consolidation 3. Recap 4. Vaccination	1. Antibiotics & painkillers 2. Discovering drugs 3. Developing drugs 4. Consolidation	1. Recap 2. Non-communicable diseases 3. Cancer 4. Smoking and the risk of disease	1. Diet, exercise and disease 2. Alcohol and other carcinogens 3. Progress check 4. Feed forward	PPE