Calendar	Big Question/Theme	Small Questions	Assessment Opportunities and Criteria. Teacher feedback point (TFP)	Homework
Term 1 Year 8 Topic 8A Diet	What makes a balanced diet and how does our body digest food?	1. Why do we need food? 2. Which foods are good sources of carbohydrates, fats, proteins and fibre. 3. What is a balanced diet? 4. What do food labels tell us? 5. Why do different people need different amounts of energy from food? 6. What is a deficiency? 7. How does malnutrition occur? 8. What are the consequences of the lack of a nutrient? 9. What are the main parts of the human digestive system? 10. Why do we digest food? 11. What are the functions of the organs in the digestive system? 12. How do enzymes help break down food?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 1 Year 9 Topic 9A Genetics and evolution	How does our environment and genetic information make us all different?	1. What is environmental variation? 2. How can environmental variation cause problems with classification? 3. How do you identify different types of inherited variation? 4. How does sexual reproduction cause inherited variation? 5. What is a normal distribution? 6. What is the structure of DNA? 7. What is the importance of DNA? 8. What is the relationship between chromosomes, DNA, genes, genetic information and nuclei? 9. How do organisms become endangered or extinct? 10. How do adaptations affect the survival of organisms? 11. How do you preserve biodiversity? 12. How does natural selection work on genetic variations?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 1 Year 8 Topic 8E Combustion	What is combustion and what are oxidation reactions?	1. What is a combustion reaction? 2. What is a hydrocarbon? 3. What are the products of combustion reactions? 4. What happens to the mass in a chemical reaction? 5. What is oxidation? 6. What products are formed by the oxidation of metal? 7. What is the fire triangle? 8. How can the fire triangle be used to manage fires? 9. What are the hazard symbols for substances likely to cause fires? 10. Can you identify the control variables in an experiment and describe how to control them? 11. Why it is important to carry out a fair test? 12. What pollutants are formed from burning fuels? 13. What problems to the environment can these pollutants cause? 14. How can we manage the effects of these pollutants?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 1 Year 8 Topic 8I Fluids	What are the properties of fluids?	What are the properties of solids, liquids and gases? How are particles arranged in solids, liquids and gases? Why do materials expand and contract when the temperature changes? How does the volume and mass relate to density? How can the density of an object be determined? What happens to the temperature of a substance as it changes state? What happens to the particle arrangement as the temperature increases? What happens to particle energy as the temperature increases? What happens to the particle arrangement as the temperature decreases? What happens to particle energy as the temperature decreases? How does fluid pressure change with depth and height? How can gas pressure can be increased? How does pressure link to the particle model? What is upthrust? Why do objects float? What factors effect upthrust? Which forces increase and decrease drag? What causes drag? What is the relationship between drag and speed?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 2 Year 8 Topic 8F Periodic Table	How do elements fit into the periodic table?	1. What was Dalton's atomic model? 2. How are elements represented on the periodic table? 3. What is the difference between a chemical and a physical change? 4. What happens to atoms during chemical changes? 5. How do you write chemical formula? 6. How can you use the periodic table to find the elements with similar properties? 7. What are some typical properties of alkali metals, halogens and noble gases? 8. How is the periodic table arranged? 9. What are melting, freezing and boiling points? 10. Where are the metals and non-metals on the periodic table? 11. How do some elements react with water? 12. How can you make predictions about chemical properties using the periodic table?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 2 Year 8 Topic 8J Light	How does light behave and why do we see things?	1. How can we represent light in diagrams? 2. What happens when light hits different surfaces? 3. What is an image like in a plane mirror? 4. Why does light change direction when it enters different materials? 5. How can we use lenses? 6. Why does total internal reflection happen and what can we use it for? 7. How do our eyes work? 8. What are the differences between our eyes and cameras? 9. Why do different coloured objects look different colours? 10. How are different colours of ight made? 11. How can different coloured filters and paints be used to make objects look different colours?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 2 Year 8 Topic 8G Metals and their uses.	What are the uses of metals and how do they react?	1. What are the properties of metals? 2. How do you write word equations using metals and non-metals? 3. What is a catalyst and what are they used for? 4. What happens during corrosion and rusting? 5. How can metals be protected from corrosion? 6. How do you identify products and reactants in a symbol equation? 7. What happens when metals react with water? 8. How do you place metals in order of reactivity? 9. How do you write symbol equations for reactions? 10. How do metals react with acids? 11. What are alloys and why do we use them? 12. How can we use a model to represent an alloy? 13. How do we identify a pure substance by looking at their melting and boiling points?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 2 Year 8 Topic 8C Breathing and Respiration	How is our body designed to produce energy?	1. What happens in aerobic respiration? 2. What is the function of the organs in the gas exchange system? 3. How does the structure of the lungs allow efficient gas exchange? 4. What effect does exercise have on breathing and heartbeat rates? 5. How do substances reach respiring cells and how is waste returned to the blood? 6. What are the causes and effects of a reduced oxygen supply on the body? 7. What is anaerobic respiration? 8. How does gas exchange occur in other organisms? 9. What are the effects of anaerobic respiration during and after hard exercise?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 3 Year 8 Topic 8K Energy transfer	How is energy transferred and how can we reduce heat loss?	1. How is internal energy different form temperature? 2. How can you determine the direction in which energy will be transferred? 3. What happens to particles when a liquid evaporates? 4. How is energy transferred by radiation, conduction and convection? 5. How can you use the particle model to explain the energy transfers in matter? 6. How can you reduce waste in energy transfers? 7. What do power and efficiency mean? 8. How do you calculate efficiency? 9. What is a Sankey diagram? 10. How do power companies charge for energy used? 11. What is a payback time? 12. How do you work out payback time?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 3 Year 8 Topic 8D Unicellular organisms	What are the examples and characteristics of unicellular organisms?	1. How can you use cell features to identify members of different kingdoms? 2. What are the differences between unicellular and multicellular organisms? 3. How are yeasts used in brewing and baking? 4. How do yeasts reproduce and what factors limit this? 5. Why are anaerobic bacteria used to make yoghurt and cheese? 6. What are the functions and parts of a bacterial cell? 7. How do bacteria reproduce? 8. What are the parts and functions of a protoctict cell? 9. How do algae make their own food? 10. What are the importance of decomposers? 11. What is the carbon cycle?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 3 Year 8 Topic 8L Earth and Space	Why is the Earth so unique?	1. How can we investigate planets? 2. How can we model the solar system? 3. Why do we get changes in seasons? 4. What is the pattern of light and dark at the Earths poles? 5. How do magnets work? 6. What is the Earths magnetic field and how does it affect compasses? 7. How do you find the shape of a magnetic field? 8. How do you calculate weight? 9. What factor affect the strength of gravity? 10. How does gravity affect objects in space? 11. What are stars, galaxies and constellations? 12. What is the milky way? 13. What is a light year?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 3 Year 8 Topic 8B Plants and Reproduction	How do we group living organisms?	1. How is classification useful? 2. How do you use a sample to estimate size? 3. What is sexual and asexual reproduction? 4. What are the characteristics of offspring from sexual and asexual reporduction? 5. How do plants reproduce? 6. How does pollen travel for cross-pollination? 7. How does fertilisation lead to the development of a seed? 8. What is the function of seeds in fruits?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.

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Term 3 Year 8 Topic 8H Rocks	What are the different types of rock and how are they formed?	1. How are the textures of rocks different? 2. How are the properties of rock linked to their texture? 3. What are the uses of rocks? 4. What is the structure of the Earth? 5. How are igneous and metamorphic rocks formed? 6. How does grain size give evidence for the speed of cooling? 7. How can weathering break up rocks? 8. How are weathered rocks eroded? 9. How are sedimentary rocks formed? 10. What is the texture of sedimentary rocks? 11. How does the rock cycle link the three types of rock? 12. How are metals obtained? What are the advantages of recycling metals?	Each Ks3 module is followed by a common assessed task (CAT). This is comprised of a mixture of exam questions based on that topic. Exam questions are obtained from ExamPro. Teacher will mark exam questions and provide a class feedback sheet. Students will NTG by responding to marking. Optional: there is an assessment for each topic in the Pearsons SOW.	Homework is revision of the topic's knowledge organiser. Students will be quizzed weekly /10 on firefly. Student results will be recorded on a tracking sheet. Students will complete 2 high stakes quizzes in class per half term.