


Department	SCIENCE	 HeathPark EVERY PUPIL ALWAYS IN FOCUS
Key Stage	KEY STAGE 3	
Course Level	YR 8	

Dates Delivered	Unit Title	End Points	Substantive Knowledge What will they learn about in this topic?	Disciplinary Knowledge What subject concepts will be developed through this topic?	Assessment Method	Key Course Guides & Reading
Autum term	BIOLOGY Body systems	Sexual reproduction Circulatory system Digestive system	<p>What is sexual reproduction , what are the changes that goes through the body of a male and female during Puberty. What is menstrual cycle.</p> <p>What are the various parts of heart and their function. Role of arteries, capillaries and veins. What are the components of blood.</p> <p>What are the organs of digestive system, explain their roles. What is an enzyme and how does it work.</p>	<p>Male and female reproductive organs.</p> <p>The diagram of heart, double circulation</p> <p>Enzymes are catalyst.</p>	End of topic tests at the end of topic (identified in substantive knowledge)	<p>https://www.bbc.co.uk/bitesize/topics/zybbkqt/articles/zwb6xbk</p> <p>https://www.youtube.com/watch?v=1UvuBYUbfk0</p>

		Reaction of metals with acids	<p>displace another from a solution of one of its salts</p> <p>Reaction of metals with acids .Write symbol equation for the reaction . Constrict a risk assessment for the practical</p>	Risks involved in practical activities and how to stay safe.		
Spring	Environment	<p>Cycle and Nutrients</p> <p>Reduce-reuse and recycle</p>	<p>Describe the use of light in photosynthesis. State the factors that affect rate of photosynthesis. What is the role of nutrients and in growth of plants</p> <p>2 Recycle -reuse-reduce · Define reduce, reuse and recycle. · Evaluate the affect of reduce, reuse and recycle on environment.</p> <p>Define carbon cycle. · Explain in detail how carbon is transferred between the processes. · Suggest</p>	<p>Word and symbol equation(Balanced) for photosynthesis .</p> <p>Introduction to 6 marks questions.</p>	End of topic tests at the end of topic (identified in substantive knowledge)	https://www.bbc.co.uk/bitesize/guides/zt6sfg8/revision/3

		<p>Carbon cycle</p> <p>Earth's resource</p> <p>Acid rain, Greenhouse Effect and Global warming.</p>	<p>how human activities affect the carbon cycle.</p> <p>Identify the environmental issues currently facing the human race. · Describe ways we can reduce our impact on the Earth.</p> <p>Explain why it is important for us to protect our Earth's resources. Find of ways to cut down our carbon footprints.</p> <p>What are the main circuit symbols. Different types of circuits.</p> <p>Carry out investigations to find out how Series and parallel circuits</p>	<p>Activities/projects based on using earth's resources sustainably.</p> <p>Carbon footprint activities</p> <p>Practical activities on circuits including making different types of circuits</p>	<p>End of topic tests at the end of topic (identified in substantive knowledge)</p> <p>End of topic tests at the end of topic (identified in substantive knowledge)</p>	<p>https://www.bbc.co.uk/bitesize/guides/z27thyc/revision/2</p> <p>https://www.youtube.com/watch?v=dCx-OVUn7Cw</p>
Electricity	Circuits					

Summer Term	Earth	Series and parallel	differ. To be able to make circuits by looking at diagrams.		
		Resistance	What is resistance? Explain the different factors that affect the resistance in a wire. Carrying out the investigations for resistance.	Practical activity on resistance of a wire.	
		Domestic use of electricity	Explain the difference between a.c and d.c. Describe the inside of a plug Describe the safety features of a plug	How to wire a plug safely. Use of fuse. Identifying scientific equipment - Using basic scientific equipment safely and confidently - Recording data and observations - Drawing graphs from data	https://www.youtube.com/watch?v=2g8SusMrX_o
		Natural resources	Explain the main natural resources. Describe how are these resources exploited		End of topic tests at the end of topic (identified in
		Water resources			

		<p>Water pollution</p> <p>Metals and their uses</p> <p>Metals and its extraction Effect of human on earth's resources.</p>	<p>Research on all the main water resources. (Link with water cycle).</p> <p>What is water pollution? Find out the different causes of water pollution. How to prevent/manage water pollution.</p> <p>Properties of metals and Uses of metals. Describe the difference between Metals and Alloys.</p> <p>What is an ore and name some ores. Name some different types of extraction methods</p> <p>What are the main uses of land/earth? How can we reduce the exploitation of these resources?</p>	<p>What is potable water?</p> <p>Why are alloys harder than pure metals (GCSE concept)</p> <p>Identifying scientific equipment - Using basic scientific equipment safely and confidently - Recording data and observations - Drawing graphs from data</p> <p>Activities/ project on sustainability.</p>	<p>substantive knowledge)</p> <p>End of topic tests at the end of topic (identified in substantive knowledge)</p>	<p>https://www.bbc.co.uk/bitesize/guides/zyvwxnb/revision/1</p> <p>https://www.bbc.co.uk/bitesize/topics/zf339j6/articles/zmwvvgdm</p>
--	--	--	---	---	---	---

Healthy diet

Healthy diet.

What are the main components of healthy diet? Describe the benefits of healthy diet.

Links to PSHE, peer pressure

Drugs

Name few legal and illegal drugs. Describe why people do illegal drugs and prevention.

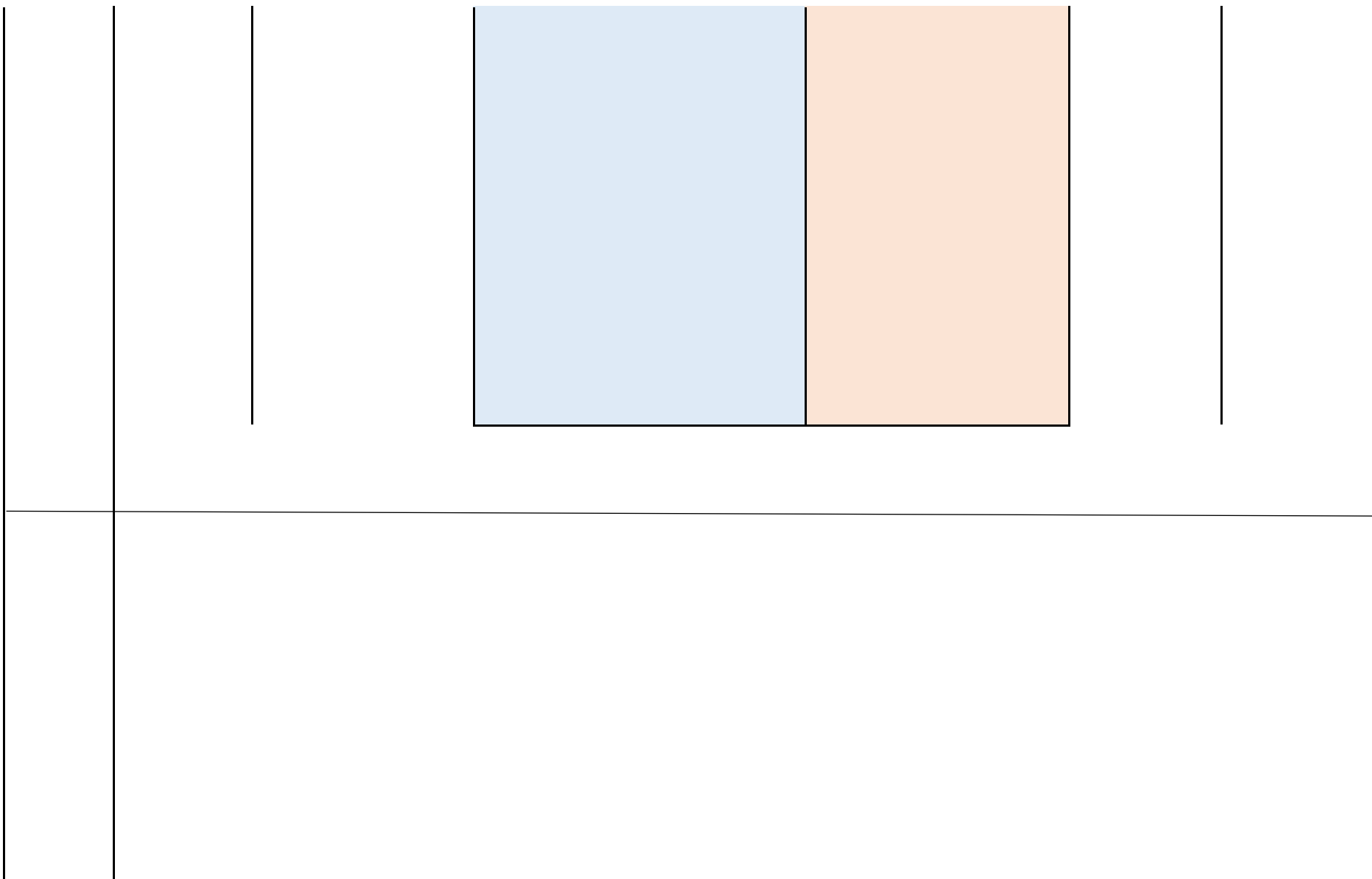
How drugs affect our thinking.

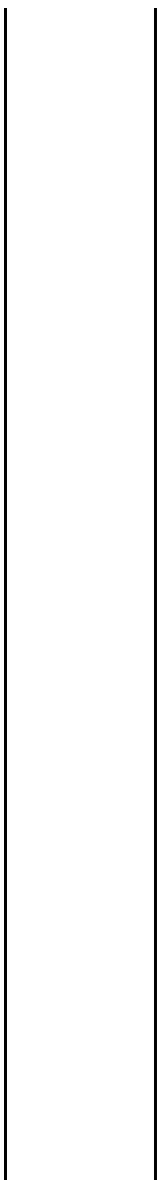
Smoking

Describe the ill effects of smoking. Describe active and passive smoking.

How passive smoking is equally bad as active smoking.

<https://www.bbc.co.uk/bitesize/topics/ztnnb9q/articles/zrs44xs>





Summer
term

