

Lesson 3: Staying Alive

- I can recognise the impact of diet, exercise, drugs and lifestyle on the way human bodies function.



Quiz time! True or False?

	True	False
Blood travels to the heart through arteries.		
The lungs provide the body with oxygen it needs to survive.		
Blood in veins is usually full of oxygen.		
The heart is the size of your hand flat on the table.		
Blood transports nutrients, water, oxygen and carbon dioxide around the body.		
Blood is made of white cells and red cells only.		



Drugs – which ones are good for us?



Smoking accounts for a quarter of all deaths by cancer in the UK.

Cigarette smoke contains around 4000 different chemicals, including 70 that can cause cancer. It contains tar, which can damage the **lungs** and stain teeth and fingers as well as cause cancer. These can also damage the **heart** and **blood vessels**. These chemicals are contained in tiny doses but accumulate in the body with every cigarette.

The smoke also contains poisons such as hydrogen cyanide and carbon monoxide. The **nicotine** in cigarettes is very addictive and many people find it very hard to give up smoking.



Alcohol is also a drug, but not one that many consider in the same light as smoking. However, it is just as addictive.

Alcohol causes damage to organs in the body too, this time the **liver**. The liver breaks down the alcohol as part of its detoxification process. However, it also produces chemicals that aid digestion, and if the liver is damaged through excess alcohol then these cannot be made.

Drinking too much can also affect your **emotional state**, as it can make you feel very happy or then send you into depression as you feel panicky.



Medicines are also drugs, but this time they help us get better. Some drugs are dangerous for our health, and some others are beneficial.

However, it is good to remember that the frequent consumption of medicines can also cause additional health issues.

Many have side effects that are very unpleasant, some are not recommended for children, and some cannot be taken more than a certain number of times per day.



Exercise – how does it keep us healthy?

exercise	body	mental
obesity	bones	carbon dioxide
heart	stronger	lung

Fill in the blanks using the word bank provided.

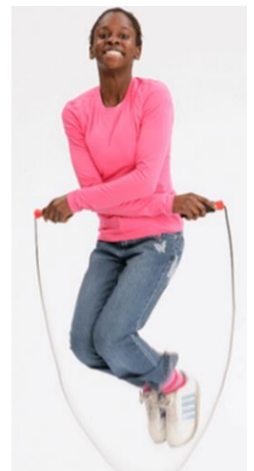
Exercise has many effects on the _____. During exercise the _____ rate and breathing rate increase to provide more oxygen to the muscles and to remove _____ quicker. Regular _____ can lead to stronger muscles and _____. The **heart** will become _____ with a reduced risk of heart disease. There is also an increase of _____ capacity.

To provide the energy for exercise, the body breaks down fats and sugars stored in the body. Regular exercise, along with a balanced diet, can prevent _____. Exercise also has an effect on _____ health and mood. It releases endorphins which make humans feel happier and calmer.



Exercise - race against time!

Measure your breathing rate by placing your hand on your chest and count how many times you breathe out in 30 seconds. Times the result by two to know how many times you breathe out in one minute. Do the same after 2 minutes of exercise, and a third time 2 minutes after that. Record your results below.



	You	Your partner
Breathing rate at rest		
Breathing rate immediately after 2 mins of exercise		
Breathing rate after 2 mins of rest		



Ms Jalloh states, “When I skip for one minute, my heart rate stays the same but my breathing rate increases.” Do you agree? Why? Why not?
