



Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 1: Calculating Speed

What is speed?

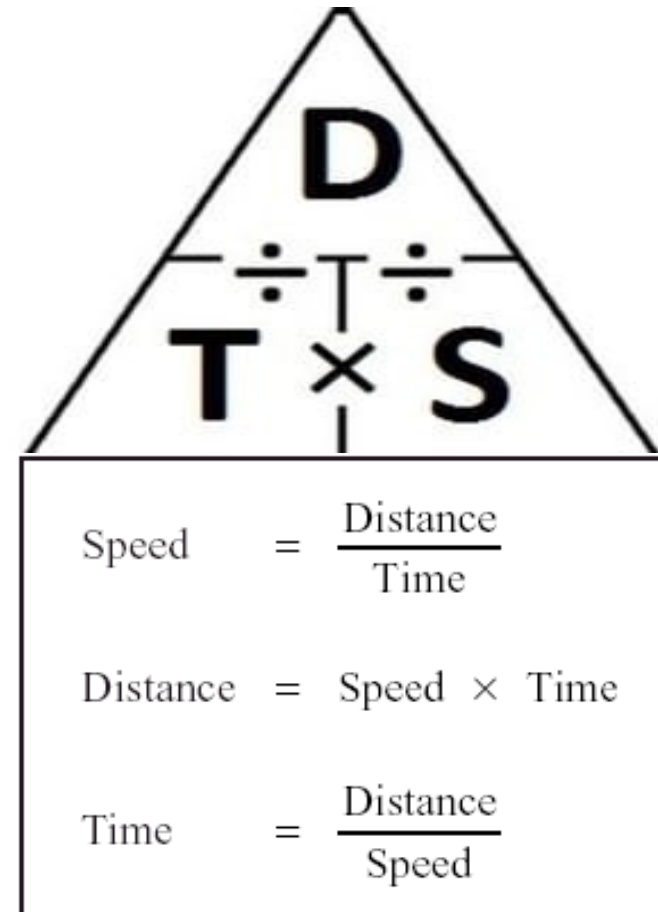
When you travel on a journey, it takes a certain amount of time to travel the distance. The speed of a vehicle is worked out from how far a journey is and how long it takes. The units used for measuring speed are meters per seconds (m/s). The units used to measure distance is meters (m) and the unit used to measure time is seconds (s)

Example calculation

Usain Bolt from Jamaica won the 2016 Olympic 100-meter final in a time of 9.81 seconds

Speed = distance travelled ÷ time taken

His speed = $100 \div 9.81 = 10.19\text{m/s}$





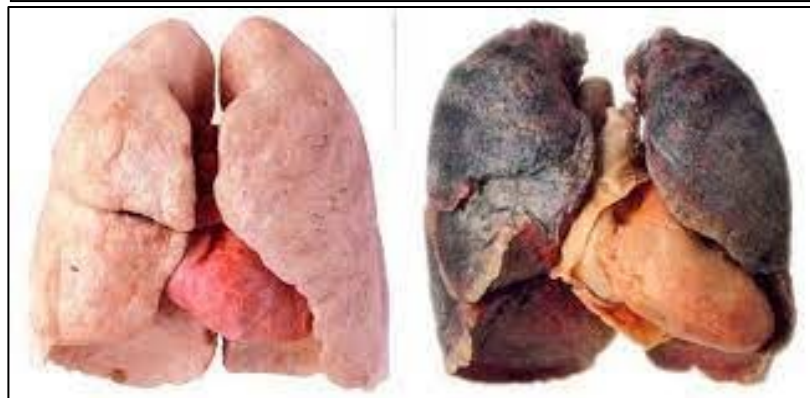
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Topic 2: The effects of smoking

The effect on the lungs

Healthy lung

Smokers lung

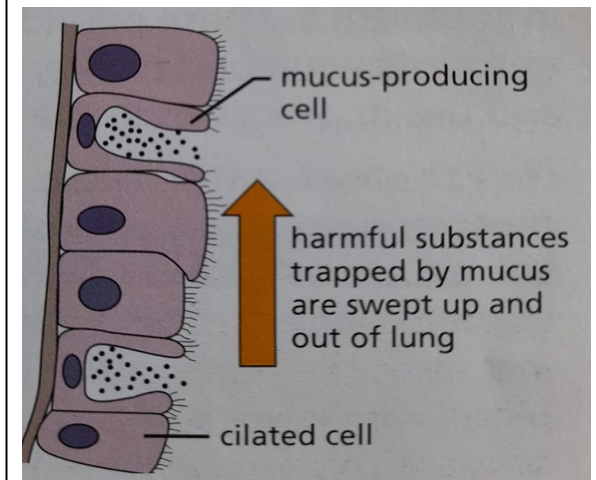


Why is smoking a problem?

Cigarettes release chemicals such as nicotine, tar and carbon monoxide.

- Nicotine is addictive
- Carbon monoxide reduces the amount of oxygen the blood can carry
- Tar can cause cancer

In normal bronchioles, there are cells with tiny hairs called cilia. These sweep away dirt particles that could damage the lungs. In a smoker, the cilia are stuck together by tar so dirt and smoke particles enter the lungs which become irritated, leading to smoker cough. Persistent coughing can damage the alveoli. In cases of severe lung damage, a patient may need a lung transplant from a suitable donor





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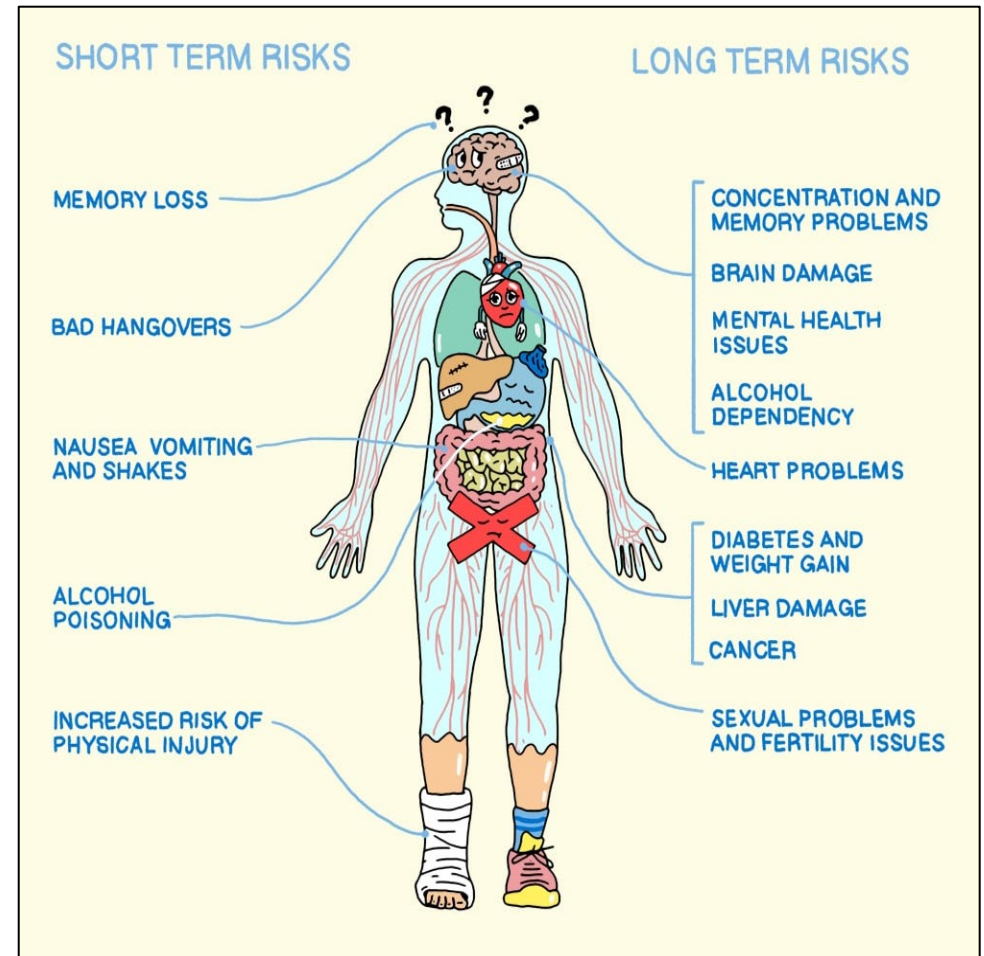
Topic 3: The effects of alcohol

The effects of alcohol

Most people who drink alcohol will experience a hangover. The headache and sickness that can come with a hangover is not pleasant. However there are more serious long-term effects linked with drinking alcohol regularly

Alcohol is a depressant drug. It slows the down the brain functioning. Soon after drinking alcohol a person may feel more confident. This is because alcohol suppresses parts of the brain that make us feel shy. As more alcohol is consumed, problems with balance may occur, as well as an inability to speak properly. Some people become aggressive when they drink. Alcohol affects the speed at which people react making it dangerous for people to drive after drinking alcohol

If people continue to drink past the stage of 'being drunk' alcohol poisoning can occur. Heart rate and breathing rate can drop dangerously low and a person may slip into a coma. This can lead to death





Vocabulary	Wider Research	Apply
<ol style="list-style-type: none">1. Speed2. Distance3. Time4. Forces5. Motion6. Drag7. Nicotine8. Tar9. Cancer10. Passive smoking11. Cannabis12. Alcohol13. Alcoholism14. Alcoholic15. Ecstasy16. Cocaine17. Heroin18. Addiction19. Withdrawal	<ul style="list-style-type: none">• Speed https://www.bbc.co.uk/bitesize/topics/z83rkqt/articles/zhbtng8• Smoking https://www.bbc.co.uk/bitesize/topics/zvr2p/articles/z3tb3j6• Alcohol and other drugs https://www.bbc.co.uk/bitesize/topics/ztnnb9q/articles/zrs44xs	<ol style="list-style-type: none">1. What is the equation used to calculate speed2. What unit do we use to calculate speed, distance and time3. Calculate the speed of an object that takes 25 seconds to travel 200 meters4. Calculate the distance an car will travel if it is moving at 60 m/s for 60 seconds5. Use your own words to describe the difference between a healthy lung and a smoker's lung.6. What are the three harmful chemicals in cigarettes and how do they affect the body7. What affect does smoking cigarettes have on the cells of the lungs8. What type of drug is alcohol9. Make a list of the short term effects of drinking alcohol10. Make a list of the long term effects of drinking alcohol

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