



Science

Animals Including Humans

Impact of Drugs and Alcohol



Aim

- I can explain the impact of drugs and alcohol on the body.
- I can describe how scientific evidence highlighted the dangers of smoking.

Success Criteria

- I can describe the parts of the body affected by drugs.
- I can describe the parts of the body affected by alcohol.
- I can describe the parts of the body affected by smoking.
- I can explain how scientific evidence can change ideas.

Drugs



What are drugs?

Can you give examples?

Are all drugs bad?

How do you know?

Drugs and Alcohol: The Facts

Legal Drugs



A drug is any substance that has an effect on your body when it enters your system.

Drugs contain chemicals which can come from natural sources or are man-made.

Legal drugs include medicines like cough syrup and substances like tea or coffee. These can be bought over the counter in shops.

If used properly, these are not substances that are considered harmful or have serious side effects. Side effects are negative effects that can occur for some people if they take a particular drug. However, even drugs you can buy in shops can be dangerous if you take too many of them.

Drugs and Alcohol: The Facts

Prescribed Drugs

These drugs are legal but only if you have been prescribed them. Only a doctor can write a prescription and this appears on your medical record.

This is due to several factors:

- These drugs can have serious side effects.
- These drugs may not be suitable for some people, such as children or pregnant women.
- Medicines may not work or may cause harm if they are not taken at the correct dose.
- Some medicines, for example, sleeping tablets, contain substances which could become addictive.
- Certain drugs can cause serious health problems if they are taken at the same time. Before prescribing any medication a doctor needs to check if you are taking any other medicine to make sure that they don't cause serious side effects if taken together. This is why you should never take medicine that has been prescribed for anyone else.

Drugs and Alcohol: The Facts

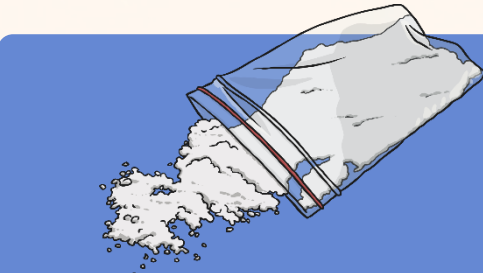
Illegal Drugs

We also call these recreational drugs. Unlike medicines, which are used to treat illness or disease, these drugs are taken by choice.

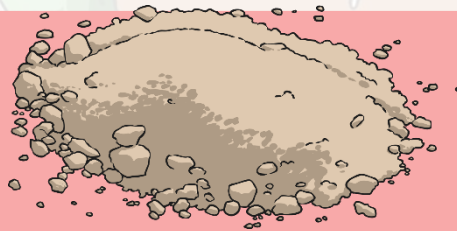
They are illegal to buy, take or sell.

People who sell drugs are known as 'drug dealers' and they are criminals.

Ecstasy comes in the form of a pill.



Cocaine is a white powder which is usually snorted through the nose but can be swallowed or injected.



Heroin is made from the poppy plant and comes as a brown-white powder that is usually smoked or injected.

Cannabis is a plant that is dried and smoked. It is also called Marijuana.



Drugs and Alcohol: The Facts

Illegal Drugs

If these drugs are illegal, why do people use them?

There are many reasons why people take recreational drugs:

- For fun or excitement.
- Because they think it will temporarily make them feel good.
- Because they are bored.
- Because their friends or family take them.
- Because they are addicted to them.



Drugs and Alcohol: The Facts

Alcohol

Alcohol is a drug produced from grains, fruits and vegetables when they are put through a process called fermentation.



Alcohol is a legal drug but there are restrictions and recommended limits on its use.

- Children under 5 should never drink alcohol unless it is in a prescribed medicine.
- It is not recommended that anyone under 15 drink at all.
- An adult may buy a drink for a 16 or 17 year old to drink with a meal.
- Only adults (aged 18 or above) are allowed to buy alcohol.

Why do people drink?

It can slow the body and make people feel more relaxed. It is seen as a sociable thing to do in some countries.

What are the positive effects?

Drinking small amounts of alcohol can have some health benefits for **adults** such as helping to prevent blood clots in arteries.

Drugs and Alcohol: The Facts

Alcohol

What are the problems with drinking too much?

- Loss of impulse control. This means a person may do silly or dangerous things that they would not normally do.
- Loss of control over speech and movement.
- Memory loss.
- It can increase aggressive and violent behaviour.
- It can make people feel very unwell when the effects wear off. This is called a 'hangover'.

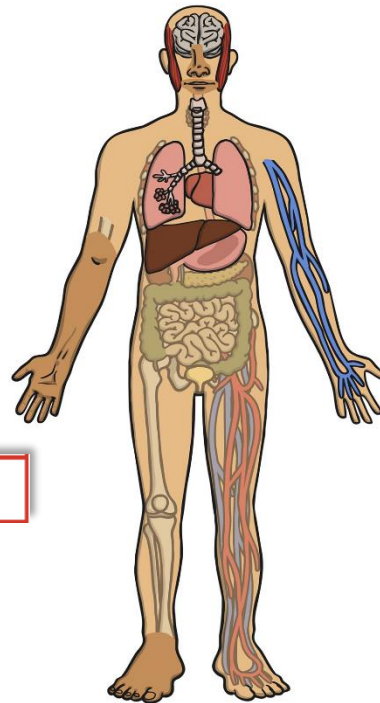
What can happen if you drink too much over many years?

- High blood pressure.
- Stomach cancer.
- Liver damage or cirrhosis (liver failure).
- Addiction and withdrawal (the symptoms of which can be fatal).

Impact of Drugs and Alcohol on the Body



Impact of Drugs and Alcohol on the Body



Drug: Cannabis	Effect: Can make your memory worse
Part: Brain	

Drug: Ecstasy	Effect: Muscles tighten
Part: Jaw	

Drug: Cannabis	Effect: Can make you feel happy and relaxed
Part: Brain	

Drug: Ecstasy	Effect: Can cause acute respiratory distress syndrome (lungs become inflamed as the air sacs (alveoli) are damaged, so the gas exchange between oxygen and carbon dioxide decreases)
Part: Lungs	

Drug: Cocaine	Effect: Reaches the brain quickly which makes it highly addictive
Part: Brain	

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Short History of Smoking 1

Unlike alcohol, there are no benefits to smoking. So it is understandable if you are wondering why people are allowed to buy tobacco and smoke it when it only causes the body harm.

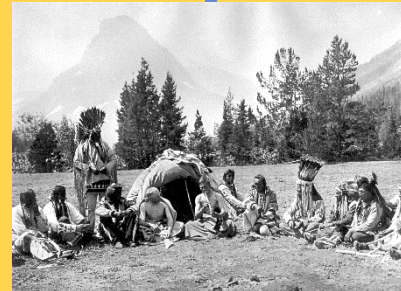
In order to understand why, it is necessary to understand how scientific evidence has contributed to changing attitudes towards smoking.

1000 BC

Earliest record of sites cultivating tobacco in what is now Mexico.



In the Americas many cultures, including the Mayans, smoked tobacco as part of religious rituals. It is thought it started off as a type of incense burning and turned into a social practice.



1600 AD

Perhaps the most well-known use of tobacco was among the North American tribes. The 'Peace Pipe' was smoked before saying prayers or to seal negotiations with other tribes. They believed tobacco was a gift from their creator and when they smoked their thoughts and prayers went to their creator.

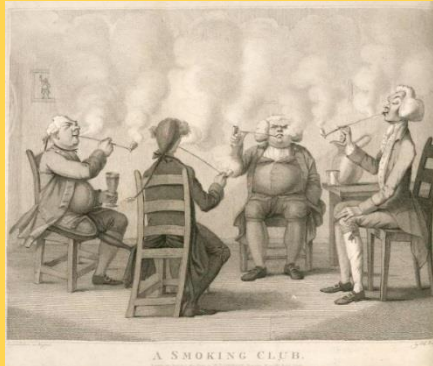
Short History of Smoking 2

1600 AD



Europeans (The Spanish and Portuguese initially) explored and then started to rule over parts of the Americas. Tobacco started to be traded and was introduced to other parts of the world.

1700 AD



Chewing and smoking tobacco was normalised into society in European countries and their colonies during this period. At this point it was not known that tobacco could have harmful effects.

1800 AD



In the late 19th Century cigarettes became popular and John Bonsack created an automatic cigarette rolling machine. This was the start of the 'tobacco' industry that exists today.

1920's

Smoking was seen as normal in the early 20th century. In the UK, the majority of men and about 40% of women regularly smoked – the majority smoking cigarettes. There were adverts and posters telling people how smoking was good for them and healthy!

Fritz Lickint, a German doctor, was the first doctor to publish a study linking smoking and lung cancer. He also coined the term 'passive smoking'.

1950s -1960s

Most people just didn't believe that smoking could be unhealthy until the 1950s.

In 1956, The British Doctors Study published the first paper to argue and provide strong evidence which showed that smoking cigarettes increased the chances of getting lung cancer.

In 1964, The Surgeon General's report in the USA also showed a link between smoking and cancer.

In 1965, cigarette companies were no longer allowed to advertise on television.

1970s - 1990s

As late as 1994, big tobacco companies claimed they were not aware of the problems of smoking.

It has subsequently been shown that tobacco companies **knew** that cigarettes caused health problems including heart disease, cancers and emphysema.

They also knew that they were addictive. Some companies deliberately added more nicotine to their cigarettes so that people would get addicted.

They also deliberately targeted underage smokers, paying for actors to smoke in films and on TV so it would be seen as 'cool'.

In the UK, since 1997 most forms of tobacco advertisement were banned.

Warnings were first added to tobacco products in 1971 but this was extended so that it would cover a third of the packet. Subsequently pictures were also added as an extra deterrent.

2000 - Now

In the UK, the number of men and women who smoke is now a minority (about 21% of adults smoke).

In 2007, the government banned smoking inside all public buildings to further discourage smoking and to reduce the harm of passive smoking.

E-cigarettes:

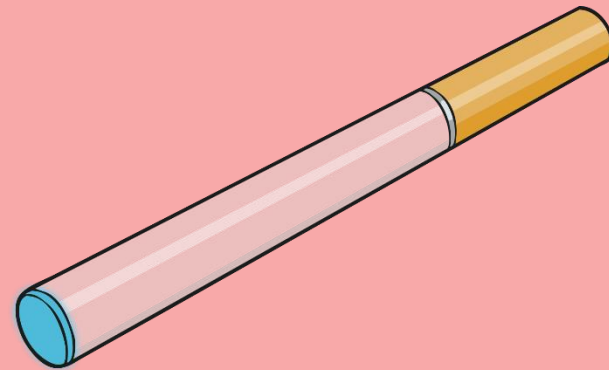
These are electronic cigarettes through which smokers inhale nicotine alone.

They are controversial. No one knows the health risks, they still contain nicotine which is addictive and some people believe they may glamourise smoking again.

Smoking Tobacco

What about e-cigarettes?

In theory, e-cigarettes are less harmful than normal cigarettes as they don't contain tar or carbon monoxide. However, people who smoke them are still inhaling nicotine so they would still suffer the health problems associated with this. Also the effects of smoking nicotine (or 'vaping' as it is sometimes called) in this way are not yet known, so it may not be less damaging to the body after all.

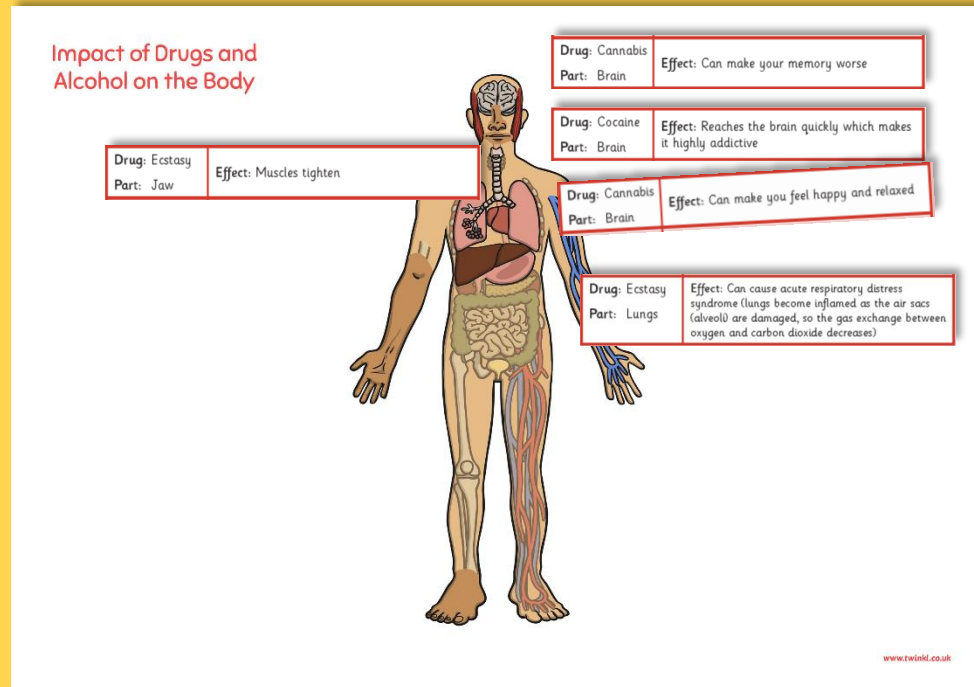


Impact of Smoking on the Body



You need to:

- Add the negative effects of smoking on different parts of the body to your diagram.
- Add some fact boxes showing how attitudes have changed to smoking and why.



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