



# Drugs on the Body

---

# Task 1

- What does the term 'drug' mean?
- Drugs are substances that cause chemical reactions in the body. Not all drugs are illegal substances.

# Categories of Drugs

There are four different categories to divide drugs into:

- Socially acceptable drugs
- Prescribed drugs
- Over the counter medicines
- Controlled drugs (illegal drugs)



Can you think of any drugs which might fit into these categories? Discuss!

# Socially Acceptable Drugs

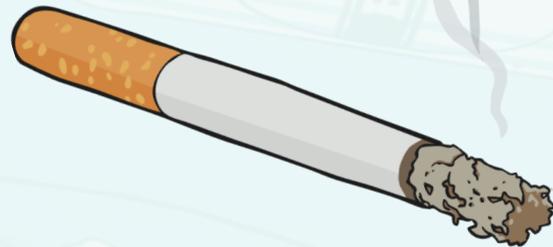
- Cigarettes – (nicotine)
- Alcohol
- Coffee – (caffeine)
- Steroids



Socially acceptable drugs are drugs which are legal to possess and are seen as acceptable to be taken in company. This doesn't mean they do not cause problems!

# Cigarettes and Alcohol

- Nicotine and alcohol are both socially acceptable drugs meaning they are legal. However, there are some scientists who believe that they are just as dangerous as illegal drugs. Alongside many other dangerous side effects.
- Smoking can damage your lungs.
- Drinking alcohol can damage your liver.



# Caffeine

Caffeine is found in lots of everyday food and drinks, for example:

- Coffee
- Soft drinks
- Chocolate



It can even be advertised in some drinks or tablets to help boost your energy! However, while it can make you more alert for a short time, it can also increase your heart rate, increase your blood sugar level, cause headaches, dizziness and interrupt sleep patterns.

# Steroids

Steroids can be taken to enhance sporting performance. This is known as doping and is a form of cheating. It is also very dangerous for the athlete.



- Stimulants are used to give more energy and stop athletes feeling tired but they are also very addictive and can cause heart failure.
- Hormones, like HGH (human growth hormone) can help build muscles but also cause arthritis, diabetes and heart disease.

# Prescribed Drugs

Prescribed drugs are drugs which require a prescription from a medical professional.

- Asthma Inhalers
- Penicillin
- Diclofenac

**Can you name any others?**



# Over the Counter Medicines

Unlike prescription medicines, over the counter medicines can be bought in supermarkets or pharmacies without medical advice.

- Cough syrup
- Congestion relief
- Flu Relief medicine

Can you name any more?



# Abusing Medicines

While over the counter and prescribed drugs are there to help us when we are unwell or in pain, some people can misuse them. These medicines can be highly addictive. They can also cause...

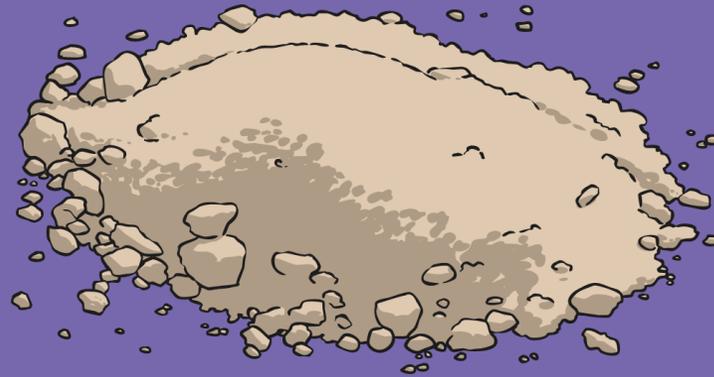
- allergic reactions;
- breathing difficulties;
- mental health problems.



# Controlled Drugs (Illegal Drugs)

Illegal drugs are what most people think about when they start to discuss this topic. There are many different types, including:

- heroin;
- cannabis;
- cocaine.
- **Can you name any more?**



# Risks

- **Dirty needles** – some drugs are injected. If users share needles, then they increase the risk of passing on life-threatening diseases.
- **Not pure** – it is rare that a drug bought on the street will be pure. In order to make more money, drug dealers will mix drugs with other dangerous chemicals and substances. This can range from herbs and spices, to bleach, brick dust and gravel. You never know exactly what you are taking!
- **Breaking the law** – having class A drugs in your possession or selling them is a crime!



# Heroin

## **What does it look like?**

Heroin is a Class A drug which is a white powder, but on the streets it is usually mixed with other unknown chemicals and substances so can be brown in appearance.

## **How do people take it?**

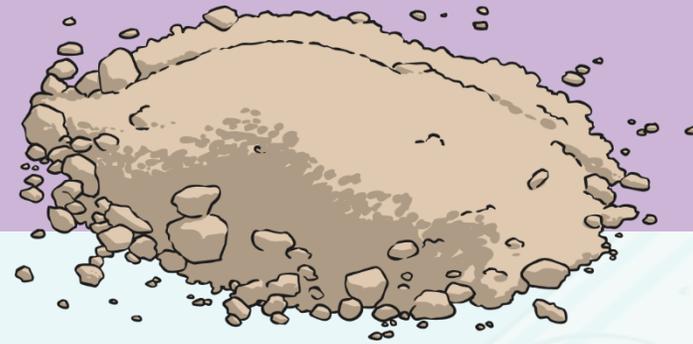
Heroin is either snorted or injected into your veins.

## **What does it do?**

It can give users a happy and calm feeling. Bigger doses can make you sleepy and relaxed.

## **Does it have other names?**

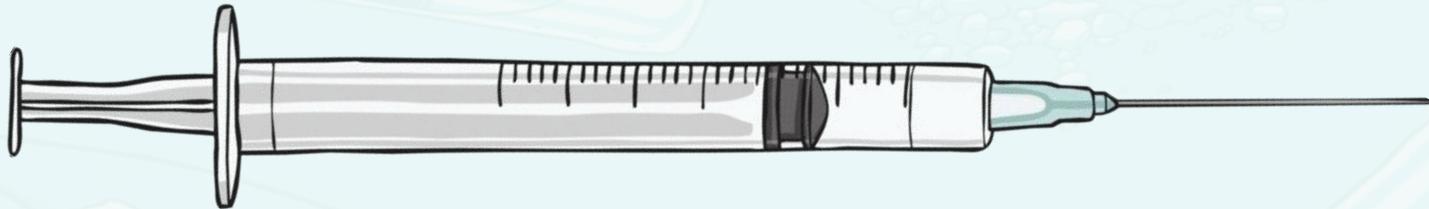
Heroin has lots of other names - smack, skag, horse, H, gear, brown.



# Heroin

## What are the risks?

- Becoming an addict. Heroin is extremely addictive and it can cost almost £100 a day to feed the habit!
- Overdosing with heroin can put you in a coma and can lead to death.
- Infections from needles: not only life-threatening diseases but also flesh infections which can lead to limbs being amputated.



# Cannabis

## **What does it look like?**

Cannabis is a Class B drug, which comes from a plant but has different forms. It can be a soft black or brown lump made from the resin of the plant or it can be the dried leaves of the plant and look like dried herbs.

## **How do people take it?**

Cannabis is usually smoked but sometimes people take it mixed in with food.

## **What does it do?**

Cannabis has lots of different side effects. People can hallucinate, feel relaxed, become very talkative and giggly or can feel like they have been slowed down.

## **Does it have other names?**

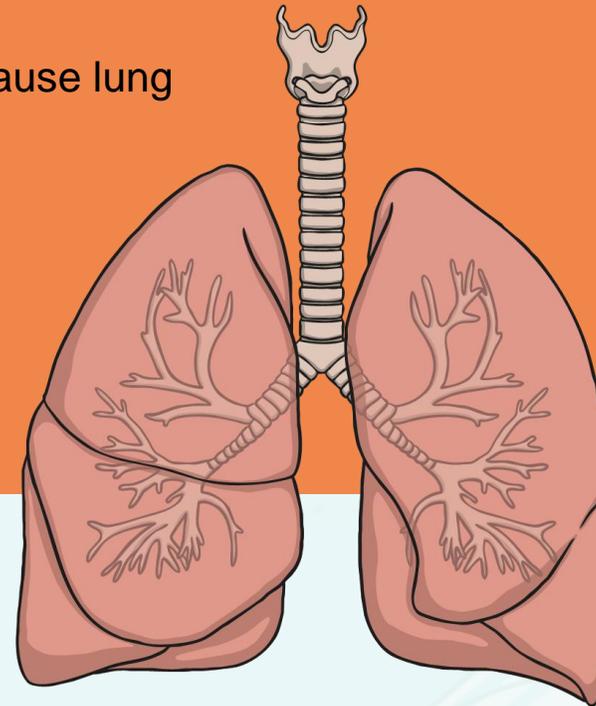
Cannabis has lots of other names such as weed.



# Cannabis

## What are the risks?

- For years, there have been arguments to legalise cannabis, with some people claiming that it is no more dangerous than smoking tobacco. However, not everybody agrees.
- Smoking cannabis, like tobacco, can also cause lung cancer and breathing problems.
- It also messes with your brain. Prolonged use of cannabis can cause mental illness, depression and anxiety. The hallucinations can be terrifying and disrupt people's sleep and daily lives.



# Cocaine

## **What does it look like?**

Cocaine is a Class A drug which has different appearances. As coke, it will usually be a white powder. As crack, it will be in small white lumps or rocks.

## **How do people take it?**

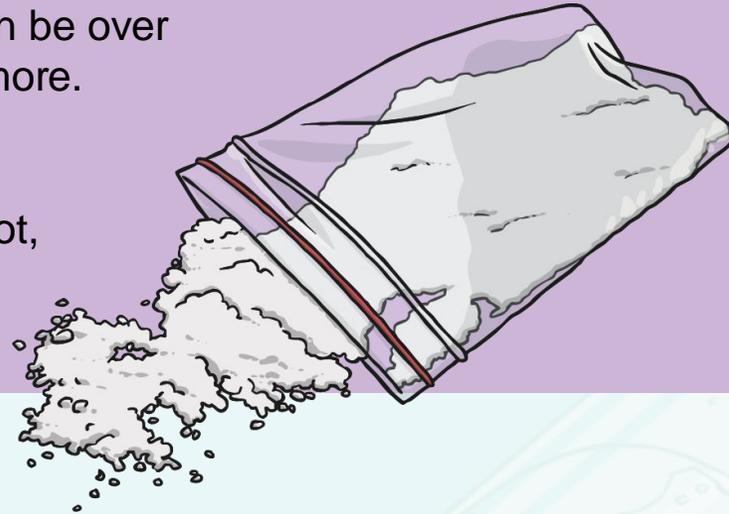
Cocaine can be snorted, smoked or injected.

## **What does it do?**

It is said to give people a 'high', making them feel really confident and wide awake, but the effect can be over very quickly, meaning people want to take more.

## **Does it have other names?**

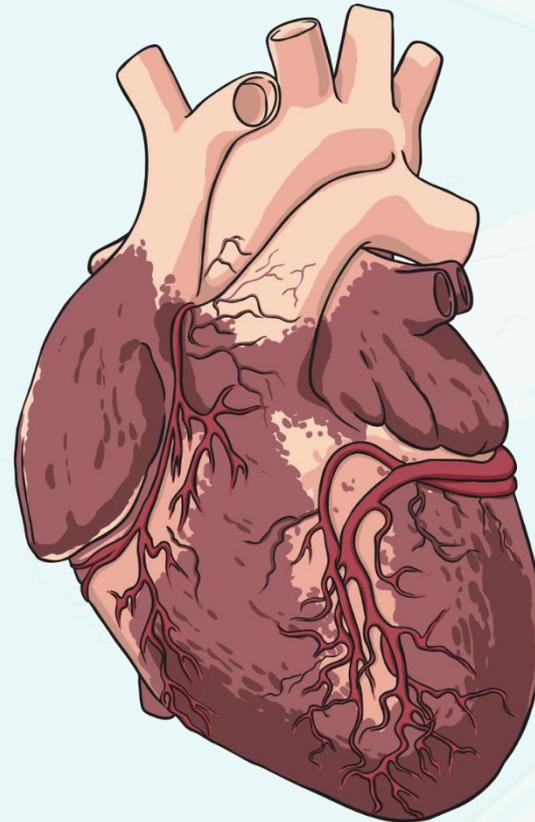
Cocaine has lots of other names - white, toot, stones, snow, rocks, pebbles, freebase, crack, coke, ching, charlie, chang, C.



# Cocaine

## What are the risks?

- Cocaine raises the body's temperature causing dehydration.
- It also increases the heart rate and can lead to heart attacks.
- When snorted, it can damage your nose cartilage causing an odd shaped nose.
- Sharing needles can cause the spread of dangerous disease.
- It is highly addictive. One gram of cocaine can cost £42 making it an expensive addiction.



# Peer Pressure

- There is a lot of pressure from peers (children of your own age), advertising (not so much now) and older teenagers to try smoking, alcohol & various drugs and it is sometimes difficult to say 'No!'
- Some shopkeepers break the law and sell cigarettes and alcohol to underage children. Sometimes older teenagers offer to buy substances for younger children.
- Legally you cannot buy alcohol or cigarettes (since Oct 1<sup>st</sup>, 2007) until you are 18 and you cannot smoke in enclosed public places (since July 1<sup>st</sup>, 2007).

# Task 1: Create a campaign to prevent young people from taking drugs

Your task is to create a poster/ad campaign to prevent young people from trying drugs. Make sure it has a catchy slogan to stop young people trying drugs for the first time. Maybe you could put some together and write a rap! Make it colourful and eye catching.

Here are some examples:

- Lions, and tigers and bears oh my...drinking and smoking and drugs? Goodbye!
- Get high on life, not on drugs
- Drugs: You use, you lose
- Drug free is the way to be
- Too smart to start
- There is no excuse for drug abuse
- If you aren't drug free, you can't hang with me

# Task 2: Human Life Cycle

---

What is the human life cycle?

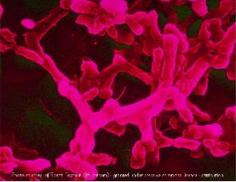


# Types of Reproduction

How does new life start?

|                           | <b>Asexual Reproduction</b>  | <b>Sexual Reproduction</b>   | <b>Both Sexual and Asexual Reproduction</b>                                 |
|---------------------------|--|--|---|
| <b>What is it?</b>        | One parent produces new life.  | Two parents – one male and one female – are required to produce new life.  | Either one or two parents.  |
| <b>How does it occur?</b> | One cell simply starts to divide itself.<br><br>All cells of the offspring are <b>identical</b> to the parent. This means that it is a <b>clone</b> of the parent. | Male sex cells (sperm/angiosperm/pollen are different versions of male sex cells) fertilise female sex cells (eggs).<br><br>This fusion means that the offspring resembles but is <b>not</b> identical to the parents. | Some living things have the capacity to reproduce in sexually or asexually. |

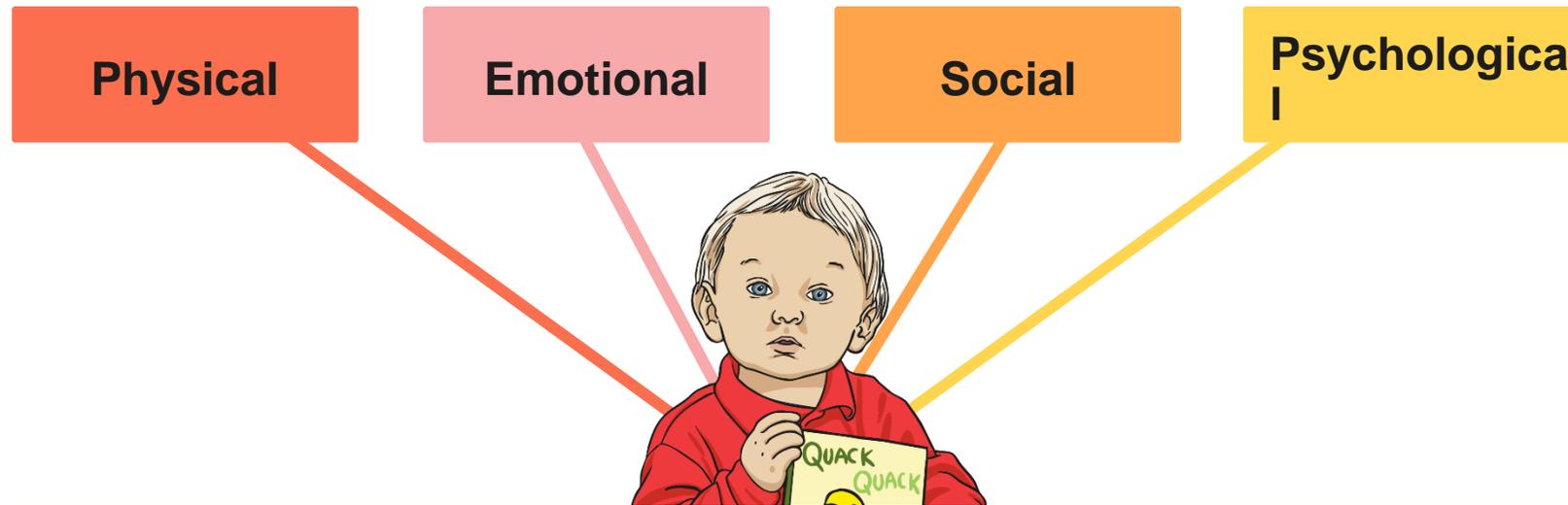
# Sorting Activity

| Asexual Reproduction   | Sexual Reproduction   | Both Sexual and Asexual Reproduction   |
|--|---|--|
|  <p>Bacteria</p>  <p>Fungi</p>     |  <p>Rose</p>  <p>Lion</p>       |  <p>Queen Bumblebee</p>  <p>Strawberry</p> |
|  <p>Stick Insect</p>  <p>Aphid</p> |  <p>Seahorse</p>  <p>Salmon</p> |  <p>Brittle Star</p>  |
|  |  <p>Seal</p>  <p>Human</p>    |  |

# Stages of Human Growth and Development

---

It is possible to study human growth in lots of ways:



In science, the focus is on the stages of human growth and development physically. The stages you will learn about are the major changes that take place.

Prenatal means before birth. This stage of development is from the time of fertilisation (when the male and female sex cells fuse together) to the time of birth.





1 month



2 months



3 months



4 months



5 months



6 months



7 months



8 months



9 months



10 months



11 months

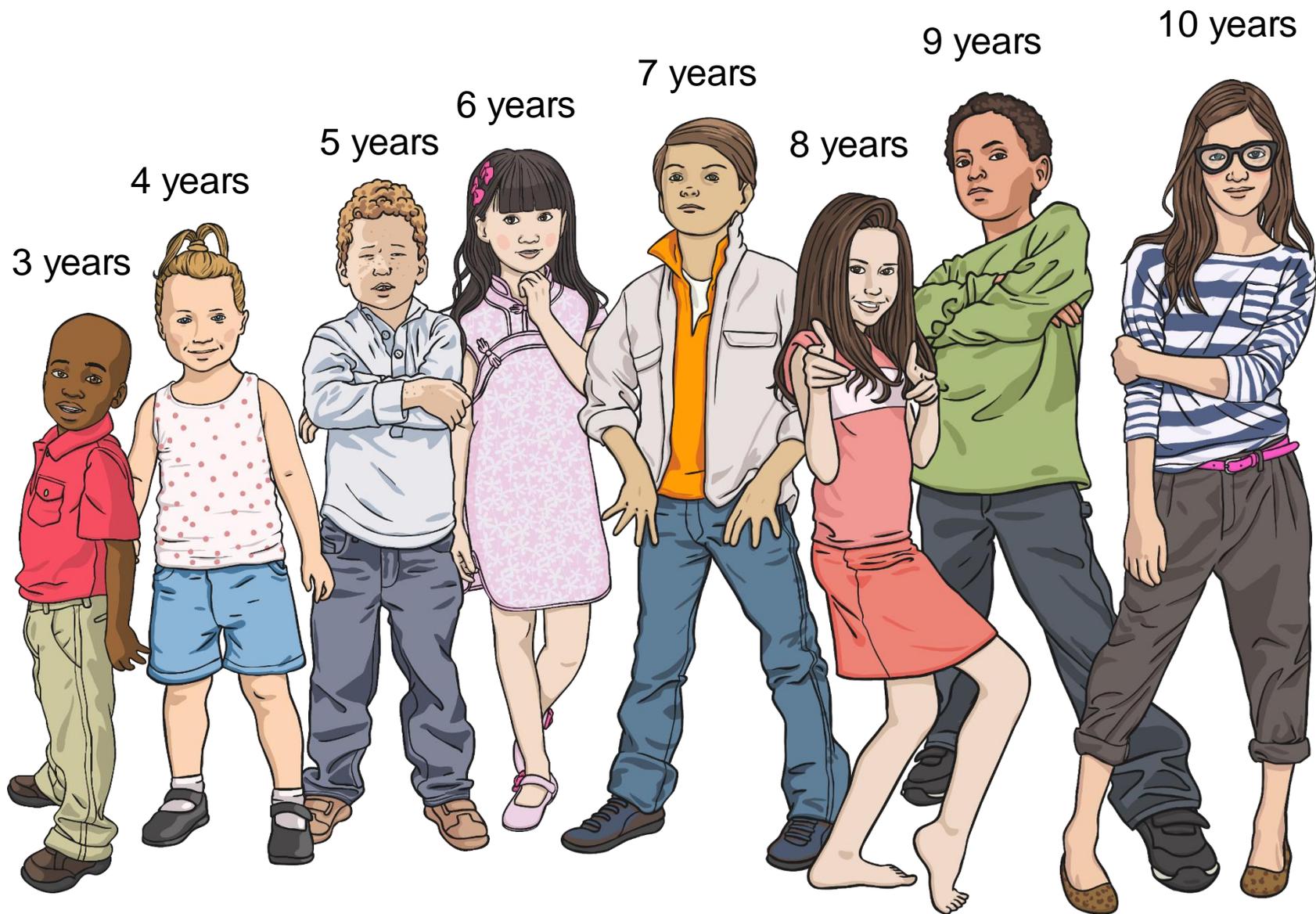


1 year



toddler





# Adolescence

The World Health Organisation defines an adolescent as being a young person aged between 10 and 19.

Puberty results in changes in the body.

Boys' bodies start changing from around age 12 but it can be earlier or later.

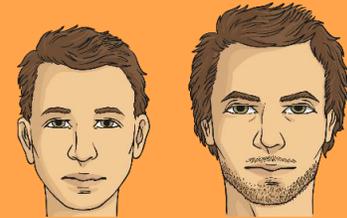
Girls' bodies start changing from around the age of 9 but it can be earlier or later.

The changes don't all come at once. They happen over a few years.

These changes occur to enable reproduction during adulthood.

Adolescents are increasingly independent.

There is even more brain development



# Early Adulthood

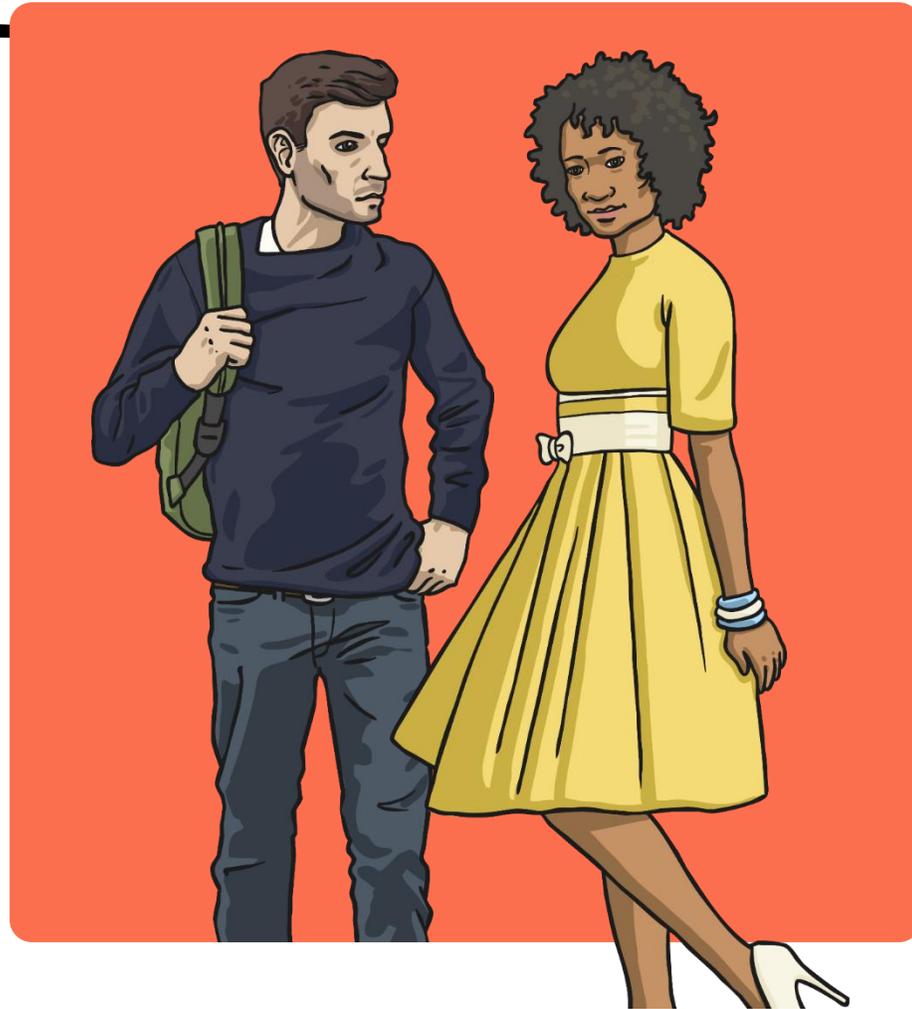
This stage of development takes place from the ages of 18/19 to 39.

The human body is at its peak of fitness and strength.

There is still some growth but not of height.

This is the age at which most humans reproduce.

Humans are able to take care of their physical needs completely independently.



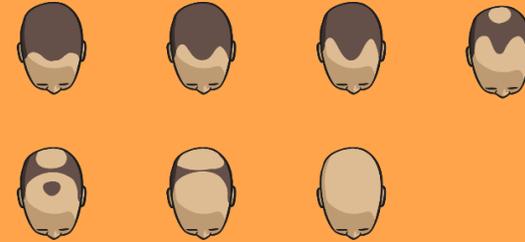
# Middle Adulthood

This stage of development takes place between 40 and 59 years of age.

Both male and female ability to reproduce declines with age.

Women experience menopause in their 40s or 50s when they no longer produce eggs.

Physical changes can include loss of hair among men and greying hair for both men and women.



# Late Adulthood / Old Age

This is the last stage of human development and takes place after the age of 60.

There is no physical growth although mental development is possible.

The body declines in fitness and health.

Some older people can become more fragile physically.

This can sometimes result in increasing dependency on others to care for them.

The end of the human life cycle is when a human dies. (The age at which this happens varies and is not simply dependent on physical factors.)



# Task 2: Make your own Life Cycle

- Using the information from the PowerPoint and the internet, can you make your own life cycle. Draw a picture of each of the 6 stages and then write a short paragraph to describe what might happen at that stage. What are important aspects of that stage?

