Changes and Reproduction

Learning Objective:

To recognise the stages of growth and development in humans.



Can you think of some ways in which you have changed since you started school?









You have grown older
You are taller
You are heavier
You have changed shape

Your brain has grown and

developed

These are all ways in which your body has changed.



There are many, many, many factors which affect the rate at which your body grows! These are just a few...

How much rest you get

What exercise you do

What you eat

The height and size of your parents



Can you think of some more?

There are also certain times in your life when you grow more quickly...







of changes happen to humans at different stages in their life cycle.



Just like plants and other animals, humans have a life cycle.





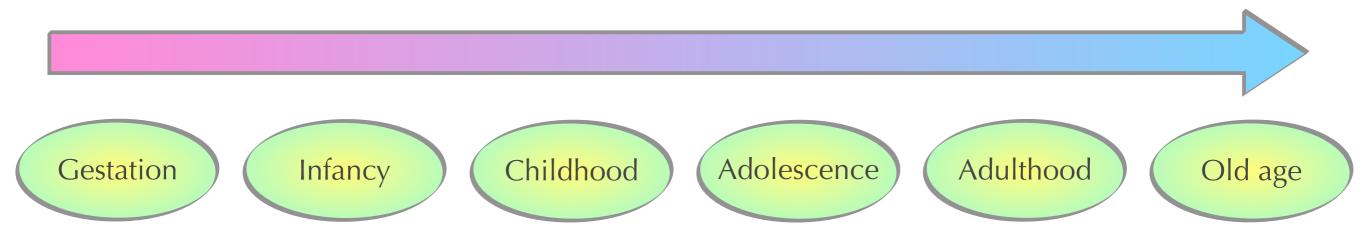


These are the names for the different stages in the life cycle of humans. Do you know what they mean? Can you put them in the correct order?



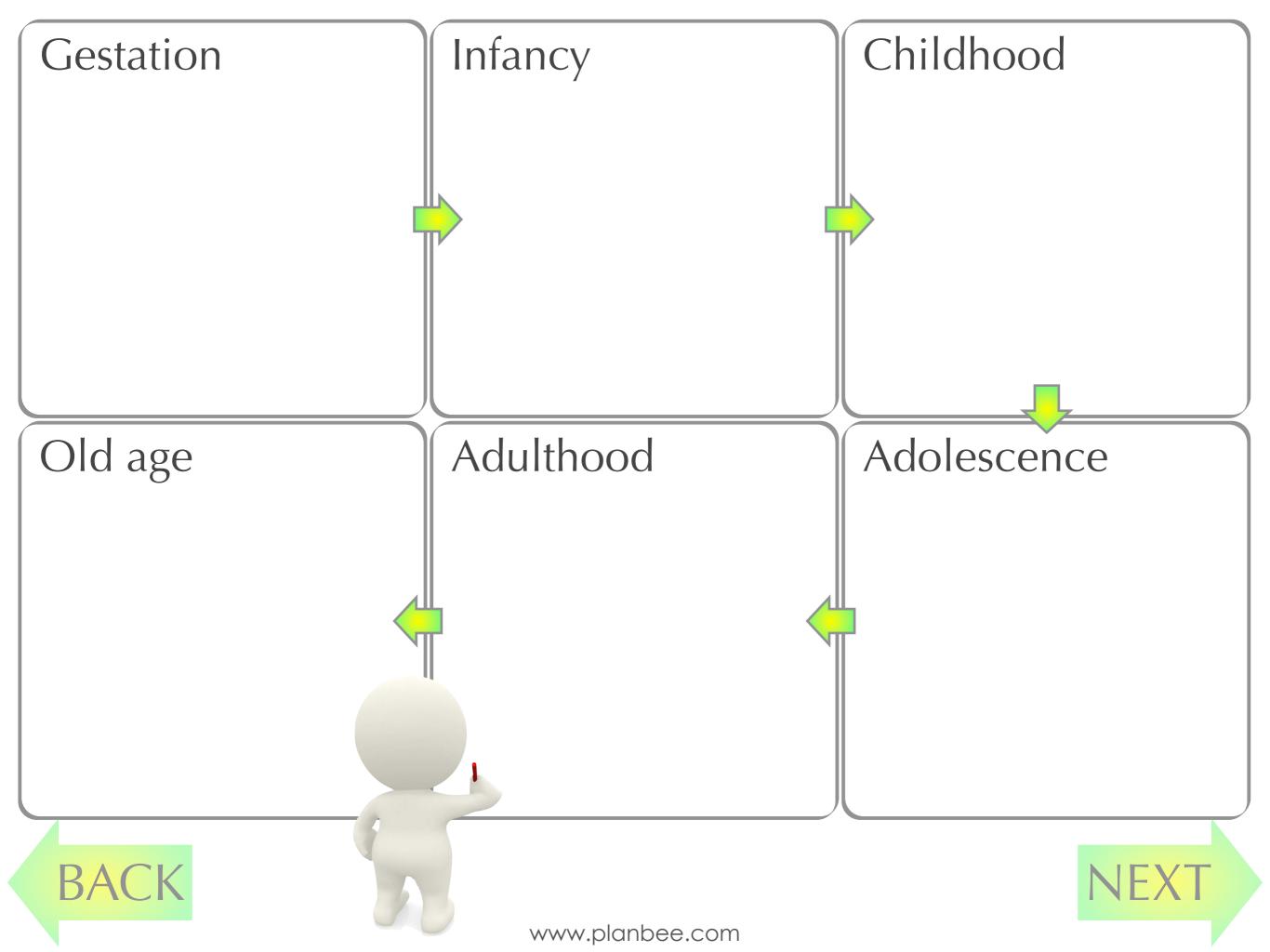
Did you get the order right?





Do you know any changes which occur in humans at these different stages in their life cycle? Discuss your ideas...

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Well done! You know a lot already! If you're not sure about the meaning of some of those words, don't worry - it's time to find out more about each stage in the life cycle of humans...

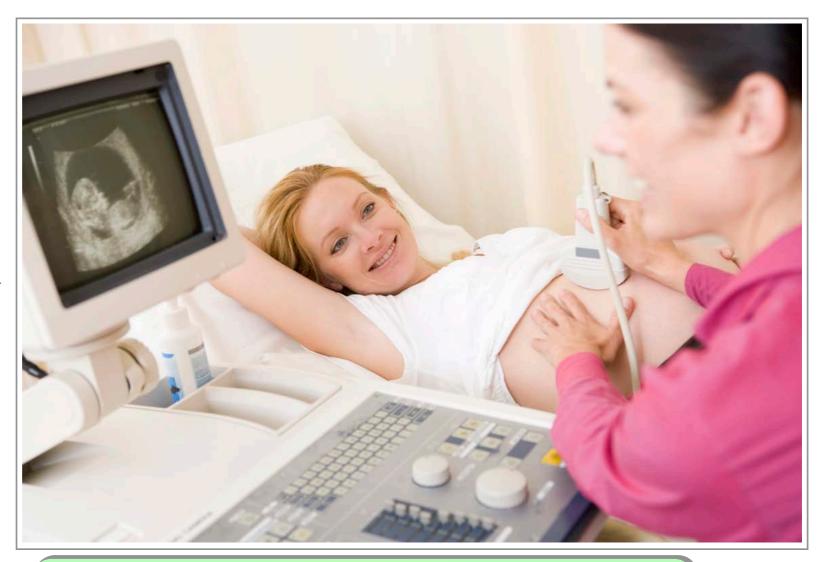






New life begins as a microscopic fertilised egg cell inside the mother's womb. The cell divides and grows, getting bigger and bigger. To begin

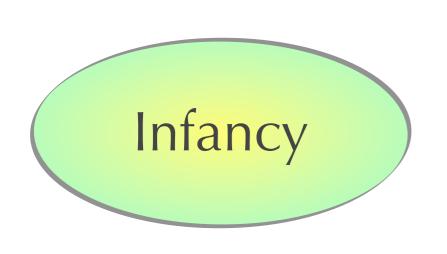
with it is called an embryo, then after around 40 days it is called a fetus. Finally, after about 37 weeks it is ready to be born.



This pregnant woman is having an ultrasound scan. You can see the fetus on the screen.









Babies rely on their parents for everything at first. After a few months, they can move on their hands and knees. Infants grow very quickly at this stage. By the



time they are four years old, toddlers have learned to walk, talk and read a few words.





From around the ages of four to nine, growth slows down a bit, but not much! Your bones and muscles continue to strengthen and grow more

slowly, and your brain grows and develops as you learn and play. Another big growth spurt is just around the corner...







Adolescence

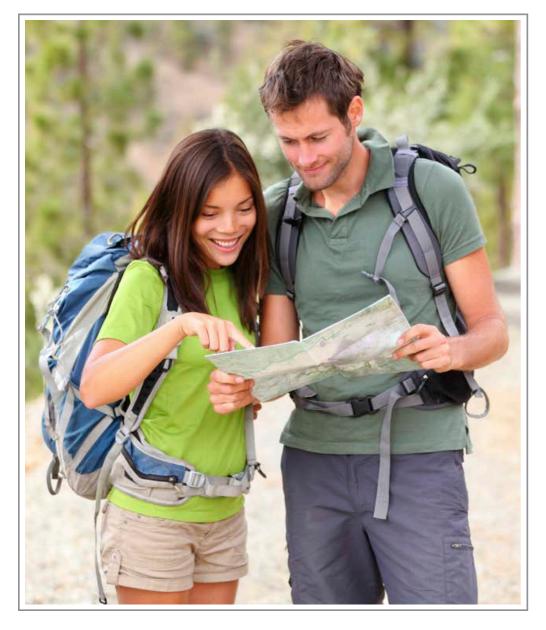
Puberty occurs at the start of this stage.

This is where humans mature sexually.



Girls' bodies grow and change to get ready for having a baby, and boys' bodies change to produce sperm, the tiny cells which combine with female egg cells at the start of pregnancy. There are also many other changes that occur at this stage.

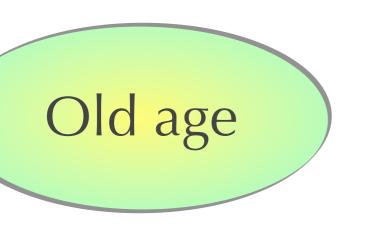
Adulthood



By this stage, adults are fully grown. Their brains are fully developed and their bodies are ready to reproduce and have children. They are fitter and stronger than they have ever been, or ever will be...







As humans get older, their bodies are not as good at renewing and repairing themselves. Muscles, bones and eyesight (among other things)

can gradually weaken, and our appearance changes.

Lots of people choose to retire at this stage in the life cycle so they can benefit from resting their bodies and enjoying life!







What a lot of information! Let's have a quick recap...





Gestation

The baby grows inside the mother's womb.

Infancy

The newborn baby relies completely on its parents. It grows quickly at this stage, learning to walk and talk.

Childhood

Growth slows down a little, but bones, muscles and your brain continue to strengthen and develop. Children learn lots at this stage.

Adolescence

The body grows quickly, becoming sexually mature and ready for adulthood. Teenage boys and girls develop differently in many ways at this stage.

Adulthood

The body is fully developed and at its physical peak. At this stage, humans are ready to reproduce and start the life cycle all over again.

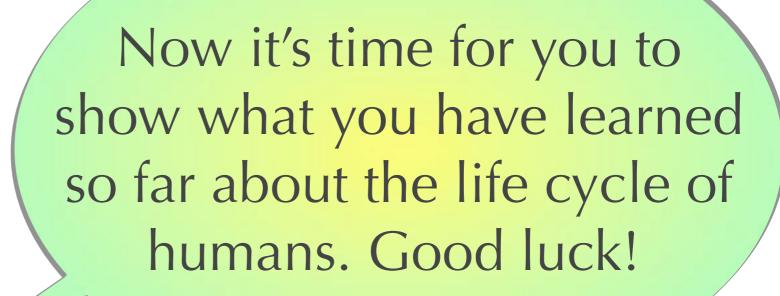
Old age

The body gets weaker - it cannot renew itself as well.

Lots of people retire from work at this stage - time to rest!





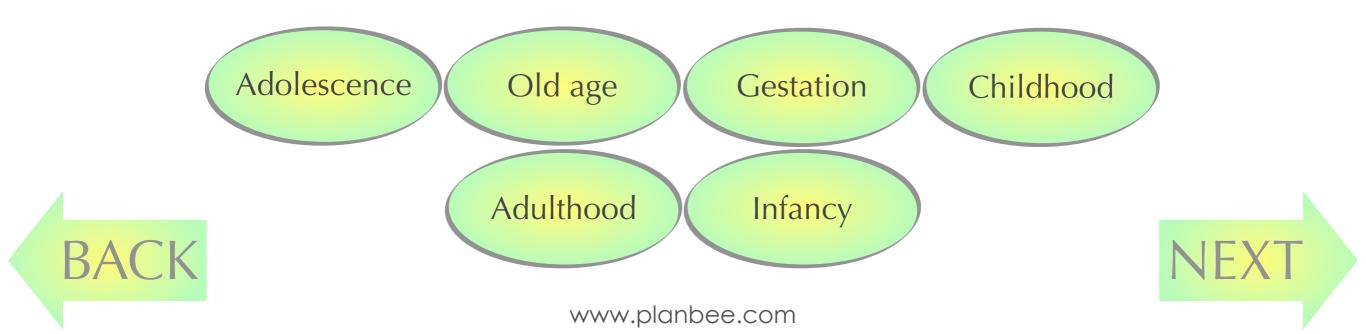






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Where would you place each stage in the life cycle of humans on the timeline above? How long do you think each stage lasts? Discuss your ideas. Does everyone agree? If not, why not?



Plenary

Were there some differences of opinion?

Did you know that some of the stages start and finish at different times for girls and boys?

Some of the stages are not only defined by changes in the body but by how people feel!



