

Science - Growth and Change

What do you think happens to specific parts of the body as we age?

<https://www.bbc.com/education/clips/zt7w2hv>

<https://www.dkfindout.com/uk/human-body/life-cycle/>

Think of someone you know in old age - 75+ - and describe their **physical** features.

Old age is also often associated with a decline in mental agility, although many elderly people are very sharp, especially if they keep mentally active.

- Why do you think these things happen?
- How do scientists know about these changes?
- What jobs do people do in old age?

Complete the reading comprehension on old age.

Old age is the last stage of human development. There are some physical changes that take place for all older people. The body is made up of cells and these cells age over time. All cells die because they are programmed to do so. They then get replaced by new cells. However in old age this process of generating new cells slows down for all people but the extent to which aging leads to ill health or problems does vary from person to person.

New nerve cells still form in old age. New connections are still being made. Lower chemical levels can make older people 'slower' but they are still do things accurately. The brain always has more cells than it needs.

Changes in vision are normal as the lens in the eyes stiffens making it harder to focus on closer objects. Also many older people need more light to be able to read.

Hearing decreases especially the ability to hear high pitched sounds.

Skin tends to become thinner and finely wrinkled. Less blood flow makes it harder for skin to heal.

Muscle strength does start to reduce from the age of 30. As you age you lose about 10 – 15% of muscle mass and strength.

As the organs don't function as well they do not always break down nutrients as well either. This can effect parts of the body such as bones. If bones are not absorbing the calcium they need they will get weaker and become more fragile.

Organs (such as the heart) are made of cells and if the process of new cells being created slows down it does decrease the ability of those organs to work effectively.

What can you do to remain healthy in old age?

Skin	The amount your skin wrinkles is affected by how well you look after it throughout your life and not just in old age. Spending too much time in the sun over your lifetime will eventually leave you with deeper wrinkles, skin blotches and skin reddening. Always use sun protection creams and avoid sun burn.
Muscles	All adults suffer muscle loss but if you exercise throughout your life, including when you are older, you can ensure that muscles remain strong and healthy.
Organs	The fact is that a normal heart will function well throughout your lifetime. Still it is easier for younger hearts to pump blood around the body than older hearts. So while an older person may not be able to outrun a younger person – it does not mean they can't run or be healthy. It is important to be active throughout your life.
Brain	The brain develops throughout your whole life. It is important to avoid activities that will damage brain cells as this damage can be permanent whatever your age. Some people do become senile due to age and due to factors they can't control. However, people who stay active and healthy are able to reduce the risk of such diseases when they are older.

Which stage of human development is old age? _____

What causes the main physical changes during old age? _____

Name two changes in old age that occur for all humans:

1. _____

2. _____

Name two things you can do during your whole lifetime to ensure you are healthy when you are in old age?

1. _____

2. _____

'It is normal to go senile when you are older'. Do you agree or disagree with this statement? Give reasons to support your answer. (Include facts you learnt from the Old Age True or False Cards)

What aspects of old age would you want to learn more about? Write these as questions (For example: why does sunburn cause wrinkles?)

Activity 2

Use what you have learnt to identify whether the fact cards are true or false.



All older people start to become senile (suffer memory loss).



Older people need a different diet to stay healthy.



If you look after your teeth properly you won't lose them all when you are old.



In old age, it is normal to be sick.



Older people need to exercise.



Older people can learn new skills.



The changes people go through as they get old are different for each person.



There is nothing you can do when you are younger to be healthier when you are older.



Older people can't look after themselves.



All older people need help to walk.



Humans start to age at 60.



Old age is the final stage of development for humans.

Activity 3

Match the pictures, ages and names of the stages of development. Add them to the timeline. The first one has been done for you.

Late adulthood / old age	Middle adulthood	Childhood	Early adulthood	Prenatal	Adolescence	Infancy
30 year old	45 year old	28 weeks	15 year old	1 year old	8 years old	65 years old



Fertilisation

0 days

