

Year 5 – Summer 2 – ‘Animals, including humans’

NC Science – ‘Animals, including humans’

Pupils should be taught to:

- describe the changes as humans develop to old age.

I can recognise the stages of growth and development in humans.

Can you think of some ways in which you have changed since you started school? Children to discuss their ideas. Did you think of any of these changes? (These are all ways in which your bodies have changed.) Show slides explaining factors affecting the rates of growth of humans. Show slides introducing the stages in the life cycle of humans. Can you put them in order? On the slide showing the stages correctly ordered, ask children to think of any physical changes that they know occur at certain stages in the life cycle of humans. Label the cycle on the slide using some of their ideas. Show slides explaining some of the key changes that occur at each stage of the human life cycle.

Present

Children are to complete the life cycle of humans diagram by adding facts about significant physical changes in the correct order. They are then to describe some of the ways in which their bodies have changed since they were a baby.

Assessment Questions:

- Can children name the main stages in the life cycle of humans?
- Can children correctly order the main stages?
- Can children broadly define the age ranges for each of the main stages?
- Can children explain some of the physical changes that occur at different stages in the life cycle of humans?

I can describe the stages in the gestation period of humans and compare them to other animals.

What do you know about pregnancy and how babies grow inside their mothers? Children to discuss their ideas.

Did you think of any of these? Show slide with some common facts about gestation and pregnancy.

How is a new life made? Show the slides explaining sexual reproduction, fertilisation and cell division to create an embryo. From the moment when an egg is fertilised to childbirth, do you know how long gestation, or pregnancy lasts? Show the slides explaining the different stages in the gestation period.

Can you match these key words to their definitions? Children to discuss and share their ideas.

Explain that today we will be looking closely at the gestation periods of other animals and comparing them to that of humans.

Present

Children are to draw a bar chart about the gestation periods of different mammals using the table of information on the sheet.

Provide

They are then to compare the bar chart to another completed chart showing the birth weights of different mammals and answer questions about the data.

Assessment Questions:

- Can children describe the main stages of gestation in humans?
- Can children explain how embryos and foetuses grow and develop in the womb?
- Can children define and use key vocabulary to describe gestation in humans?

I can recognise the stages of development during childhood and understand the needs of children at those stages.

Can you think of some things that a new-born baby can do for itself? How does this differ from the new-born babies of other mammals? Children to discuss their ideas with reference to the pictures on the slides.

Show slides explaining how the needs of human babies as well as their growth and development differs from that of other mammals.

Can you remember some of the ways in which your bodies have changed since you were babies? Children to discuss their ideas.

As the slides about how children grow and change are shown, encourage children to write down key words and notes about their meaning on mini whiteboards.

How have your needs now changed from those when you were a baby? Children to discuss their ideas.

Did you think of any of these? Share the information on the slide about needs of children aged 9-11. Again, encourage children to note down any key words and ideas.

Explain that today we will be writing reports about how children grow and change from when they are new-born babies to around 9-11 years old. Show the slide with the timeline and key information regarding childhood development to help with this.

Provide

Children are to write a report about the development of children and how their needs change over time. They are to write a paragraph under each of the provided subheadings.

Assessment Questions:

- Can children describe the needs of a new-born baby?
- Can they compare the needs of a human baby to those of other mammals?

I can describe the initial changes inside and outside of the body during puberty.

Babies have a growth spurt in the first year or so of their lives, doubling in size and doubling again! After that, the rate at which they continue to grow slows down considerably. The next big growth spurt comes between the ages of around 10 and 13 for most children; this big change is called puberty.

What do you already know about this stage in the life cycle of humans? Children to discuss then share their ideas.

What do you remember about the function of hormones in the body? Children to discuss their ideas.

Show the slides reminding children about the function of hormones and how they affect growth during puberty.

What's the point of puberty? Children to discuss their ideas. The slides following this explain why puberty occurs and the initial physical changes that occur to boys and girls during the first 2-3 years (approximately) of puberty.

Explain that today we will be labelling the parts of the body that start to change in boys and girls and describing what those changes are.

Present

Children are to label the changes that occur in the bodies of boys and girls at the start of puberty.

Provide

Write short descriptions describing those changes.

Assessment Questions:

- Can children describe the needs of a new-born baby?
- Can they compare the needs of a human baby to those of other mammals?
- Can they describe the stages of development that occur during childhood?
- Can they describe how the needs of humans change at different points in their life cycle?

I can describe the changes that occur during puberty and how they differ for boys and girls.

What do you remember about the changes that occur inside and outside the body at the start of puberty? Children to discuss their ideas.

Did you think of any of these? Show slide summarising initial changes.

Show slides explaining the similarities between boys and girls prior to puberty and how their development differs as the body prepares for adulthood, including sperm production and menstruation.

What a lot of information! How much have you remembered and understood so far? Children to discuss this. Summarise their ideas, writing them on the table on the slide.

With all these changes occurring, what can teenagers do to stay fit, healthy and happy? Discuss, then show slides explaining need for hygiene, exercise and rest.

Explain that today we will be considering the ways in which boys and girls can look after themselves and keep fit and healthy during puberty.

Provide

With reference to the subheadings on a mind map, children are to discuss the ways in which girls and boys can look after themselves and keep fit and healthy during puberty. They are then to complete the mind map, summarising their ideas.

Assessment Questions:

- Can children remember some of the initial changes during puberty?
- Can children explain some of the ways in which boys' and girls' bodies start to differ during puberty?
- Can children suggest some ways in which teenagers can look after themselves and stay fit and healthy during puberty?

I can describe how the body changes during adulthood and old age.

N.B. If possible, ask children to bring in recent photographs of themselves for this lesson.

Can you remember some of the changes that occur to humans during puberty? Children to discuss this, then show slide with examples of changes; did you think of any of these?

Although many of the changes that occur during puberty have finished by the time children are 14-16 years old, our bodies and brains continue to grow and develop until around the age of 20. This period in the life cycle of humans is sometimes referred to as adolescence. What happens next? Children to discuss this.

Show the slides explaining what adulthood means, and introducing the next stage in the life cycle: old age. What changes start to occur as we get older? Children to discuss and share ideas; collect these ideas on the slide.

Did you think of any of these? Go through the slides explaining many of the changes that occur as humans get older.

Explain that today we will be considering what life is like for people as they get older and come up with some ideas for how older people can look after themselves and stay fit and healthy as well as think of some ways in which we can help older people.

Present

Children either attach a photograph of themselves or draw a self-portrait. They then draw themselves aged 25 and 75. Children should then complete the sections describing ways in which their bodies, their lives and their needs might change over time, giving reasons why.

Assessment Questions:

- Can children explain some ways in which the body changes during old age?
- Can children describe some ways in which older people can stay fit and healthy?



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- Can they describe the stages of development that occur during childhood?
- Can they describe how the needs of humans change at different points in their life cycle?

Working Scientifically (UKS2)

- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations

