

Gestation periods

Outstanding Science Year 5 - Animals, including humans - OS5B002

National Curriculum Statutory Requirements
SB1 - describe the changes as humans develop to old age; UKS2W3 - recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs



Learning Objective

I can compare the gestation periods of different mammals.

Me:   

Teacher:   

Gestation

Nearly all mammals are **viviparous**. This means that they give birth to **live young**, rather than laying eggs. The time between the **fertilisation** of the **egg cell** by the **sperm cell** and the birth of the offspring is called the **gestation period**.



During the gestation period, the offspring develops inside the mother's **womb**. It starts off as a **zygote** (a single cell made from the union of a female egg cell and a male sperm cell) and then develops into an **embryo** composed of many cells. As time goes on, the embryo becomes a **foetus**, with more recognisable features such as skin, bones, blood and organs. The fully-developed **baby** exits the mother's body at the end of the gestation period. Gestation periods are different for different mammals.

Activity

Look at the table on the right. Use your maths skills to round the gestation period of each animal to the **nearest 10 days**. Next, use this rounded figure to complete the bar chart.

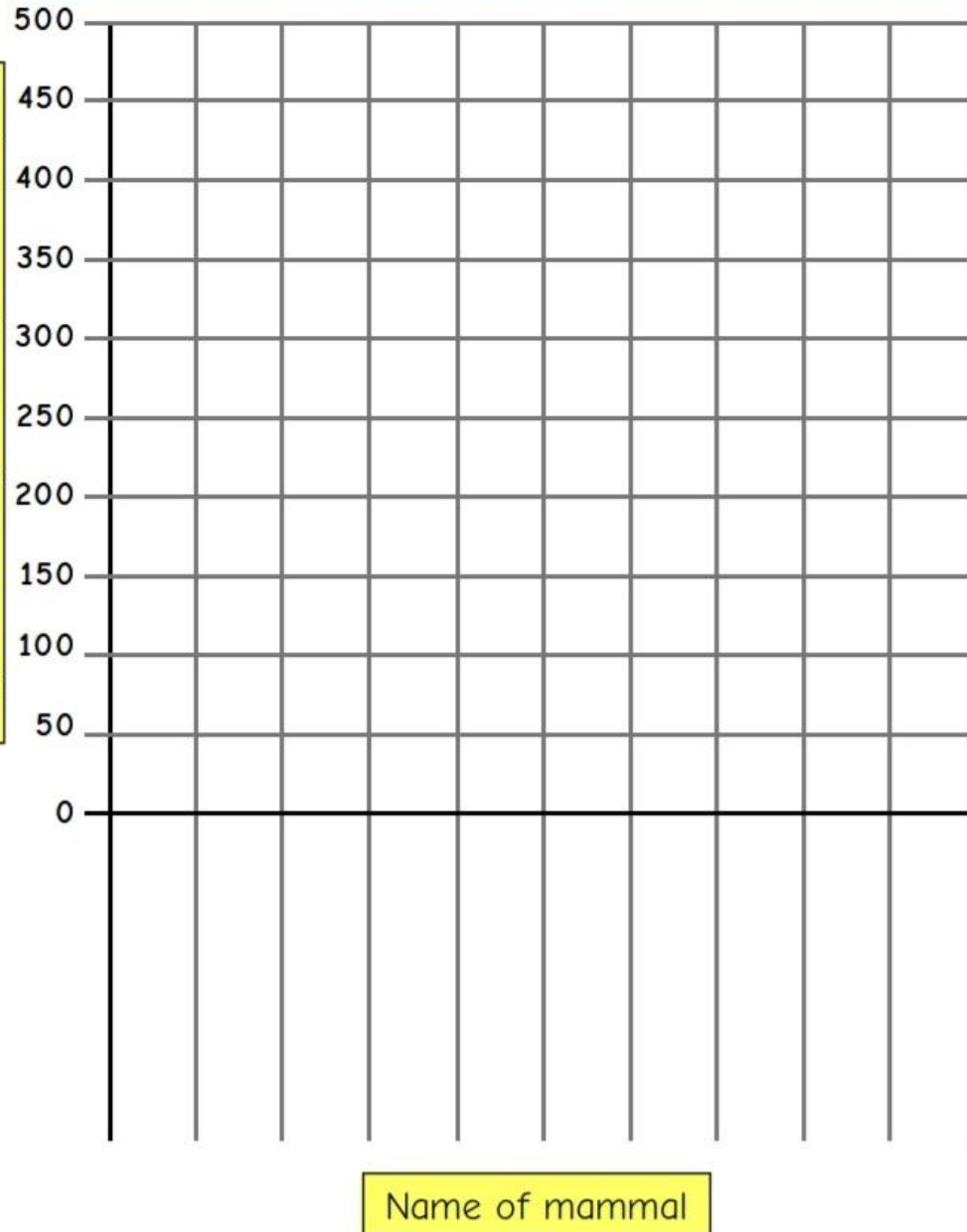
Table showing the gestation periods of different mammals

Name of animal	Gestation period (days)	Approximate gestation period (days)
Cat	63	
Dog	63	
Elephant	624	
Hippopotamus	240	
Horse	336	
Human	275	
Pig	115	
Rabbit	31	
Rat	21	
Whale	446	

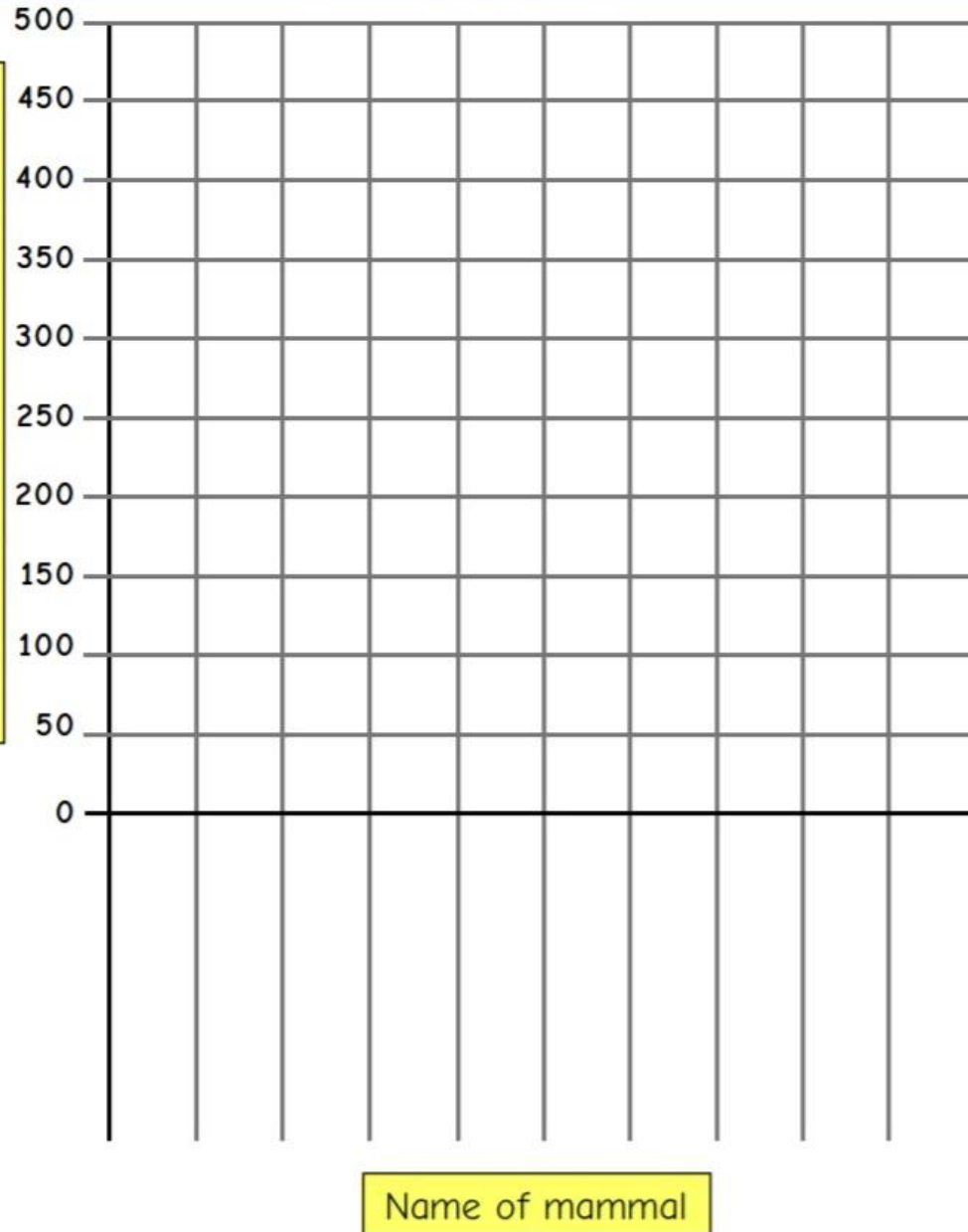
Discussion

Did you notice any patterns?
Which animal has the longest gestation period? Why do you think this is?

Approximate gestation period (days)



Approximate gestation period (days)



Foetal development

Outstanding Science Year 5 - Animals, including humans - OS5B001

National Curriculum Statutory Requirements

SB1 - describe the changes as humans develop to old age; UKS2W3 - recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Learning Objective



I can explain how a human foetus develops.

Me:



Teacher:



It takes a **foetus** (unborn baby) about 40 weeks to develop inside the womb, from fertilisation to birth. During that time, the **zygote** (fertilised egg) becomes an **embryo**, then a foetus.



By **3 weeks**, the foetus has a beating heart. It has a backbone, but no arms or legs yet.

By **12 weeks**, the foetus has arms and legs, a working skeleton, nervous system and circulatory system.

By **20 weeks**, the foetus develops bone marrow. It can recognise its mother's voice.

Most babies are born fully developed after **40 weeks**.

However, if a baby is born before the normal time (a **premature birth**), there is a good chance it will survive if it is given proper care.

Activity

The table on the right shows how the weight of a foetus changed over time. Look at the weight column. Use your maths skills to round each number to the nearest 100g. Use this information to complete the line graph on the following page.

Table showing the weight of a foetus during gestation

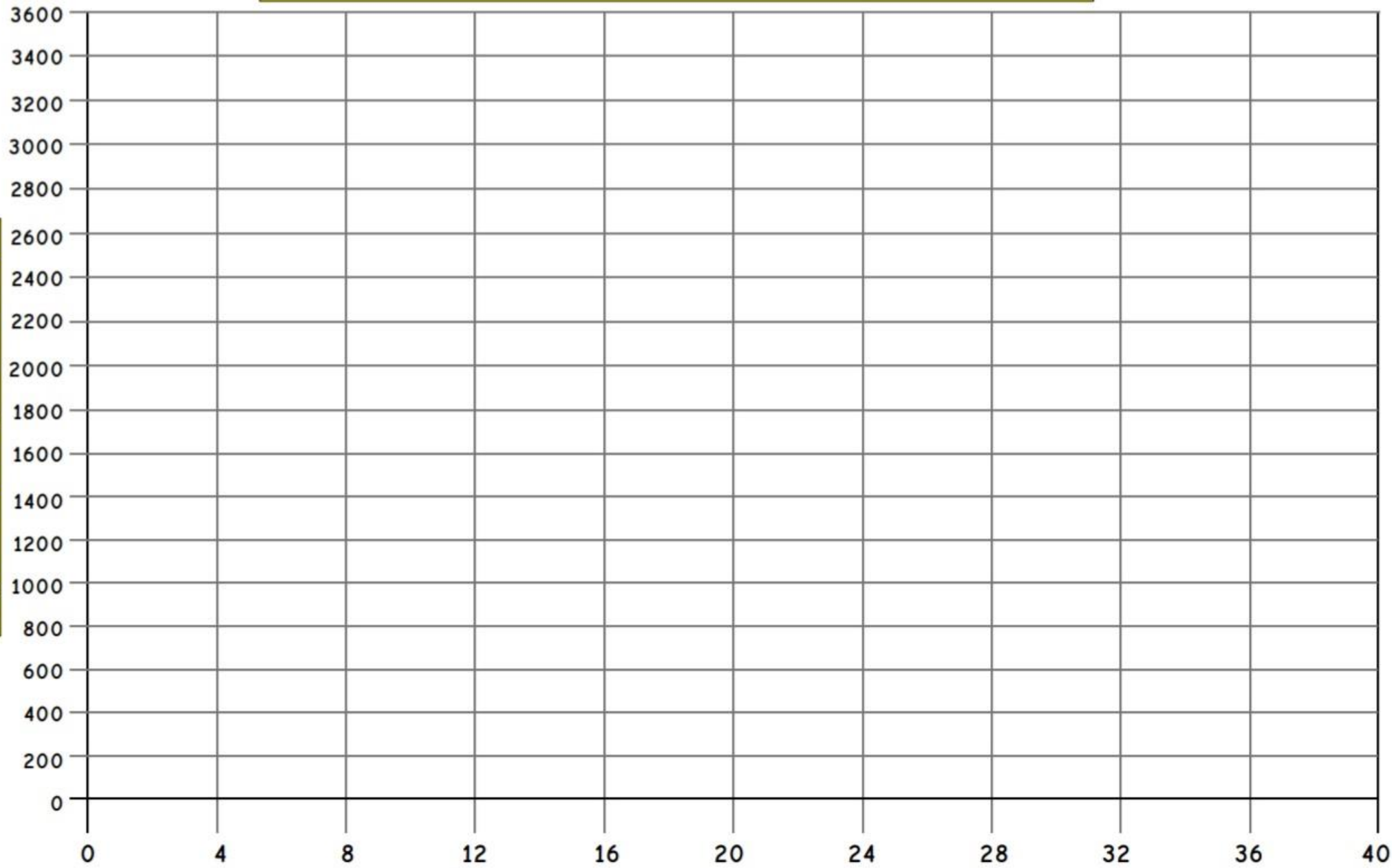
Age (weeks)	Weight of embryo / foetus (g)	Approximate weight of embryo / foetus (g)
0	0.1	
4	0.5	
8	1	
12	14	
16	86	
20	312	
24	588	
28	1003	
32	1694	
36	2615	
40	3471	

Discussion

The baby was born at 40 weeks. How much did it weigh in kg? Between which weeks did the foetus gain the most weight?

Line graph showing the approximate weight of a foetus during gestation

Approximate weight of foetus (g)



Time (weeks)