

Name:

Date:

Reproduction and Life Cycles - Activity 1: Gestation (KS1)

When many animals have babies, the baby grows in its mum's tummy. These types of animals are called 'mammals'. The place the baby grows in is called a womb and the time it takes to grow before it is born is called 'gestation' (jes-tay-shun). We are going to look at gestation and growing up today.

Mammal Gestation

Human babies grow in their mum's womb for 9 months. Some mammals give birth after a shorter time and some after longer. The table shows how long the babies of different mammals live inside their mums (their gestation).

Mammal	Gestation (months)
Elephant	24
Dog	2
Rabbit	1
Goat	5
Lion	4

Can you put the animals in order: starting with the animal with the shortest 'gestation' and ending with the longest?

Shortest

Longest

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What is the difference between the shortest and longest gestations?
(Hint: Take the shortest answer away from the longest).

The difference between the shortest and the longest is _____.

If human babies spend 9 months in their mum's wombs, where would they come in your order?

Humans would come between the _____ and the _____.

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Growing Up

After babies are born, how long does it take them to grow up? This is different for different animals. This table shows how long different mammals take to grow up.

Mammal	Time to grow up
Meerkat	2 years
Elephant	12 years
Lion	4 years
Goat	1 year
Harvest Mouse	2 months
Dog	1 year
Killer Whale	10 years
Rabbit	4 months
Gorilla	11 years

We can split these into 3 groups based on how long they take to grow up.

Group 1: Less than a year to grow up

Group 2: Between a year and 5 years to grow up

Group 3: More than 5 years to grow up

Make a tally chart sorting the mammals into these groups.

Time To Grow Up	Tally
Group 1: Less than a year	
Group 2: Between a year and 5 years	
Group 3: More than 5 years	

Which group has the most mammals in it? _____

Which group has the least mammals in it? _____

Humans take up to 21 years to grow from a baby into a fully grown adult. Which group do they belong in? _____

Name:

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Reproduction and Lifestyles - Activity 1: Gestation (KS2)

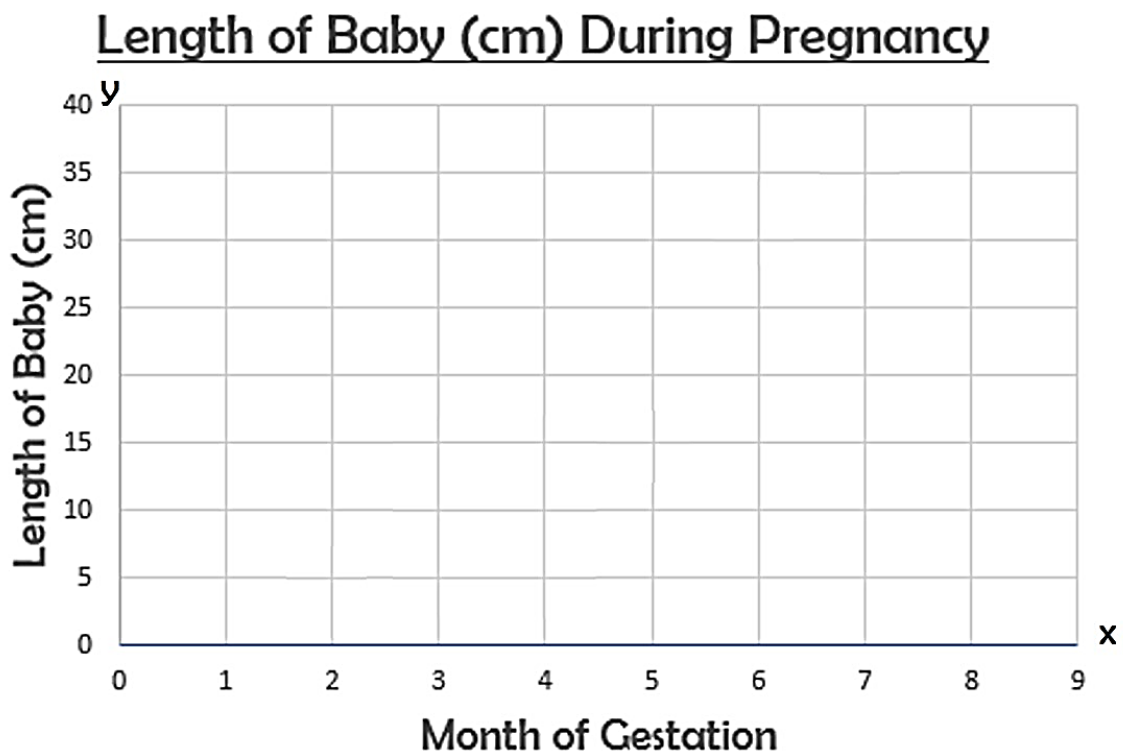
When many animals have babies, the baby grows in its mother's womb. These types of animals are called mammals. The time it takes for the baby to grow before it is born is called 'gestation'.

Human Gestation

Human babies usually grow and develop in their mother's womb for 9 months. In this time, their size will change, which we can measure in length (cm). This is a table showing how baby body length changes during some months of pregnancy.

Month of Gestation	Length of baby (cm)
2	2
3	5
4	12
5	16
6	30
7	38

Doctors, nurses and midwives can use this information to make sure a baby is developing properly. Use the table to plot the length of a developing baby over time on the graph below. (You do not need to join up the points).



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A trend is the pattern and change of a graph over time. What is the trend of this graph? Does length increase or decrease with month of gestation?

The greatest change in length is between which months? How much longer does the baby get in this time? Use this space to work out the answer.

The greatest change in length is between _____.

The baby gains _____ cm in length between these months.

Based on the trend, what do you think happens to a baby's length after 8 or 9 months? Does it get longer, shorter or stay the same? Why?

Mammal Gestation

Not all mammals take 9 months for their babies to develop. Some give birth after a shorter time and some after longer. Mammals take different times to grow up once they are born too. This table shows some of the lengths of gestation in various mammals, as well as their time to grow up.

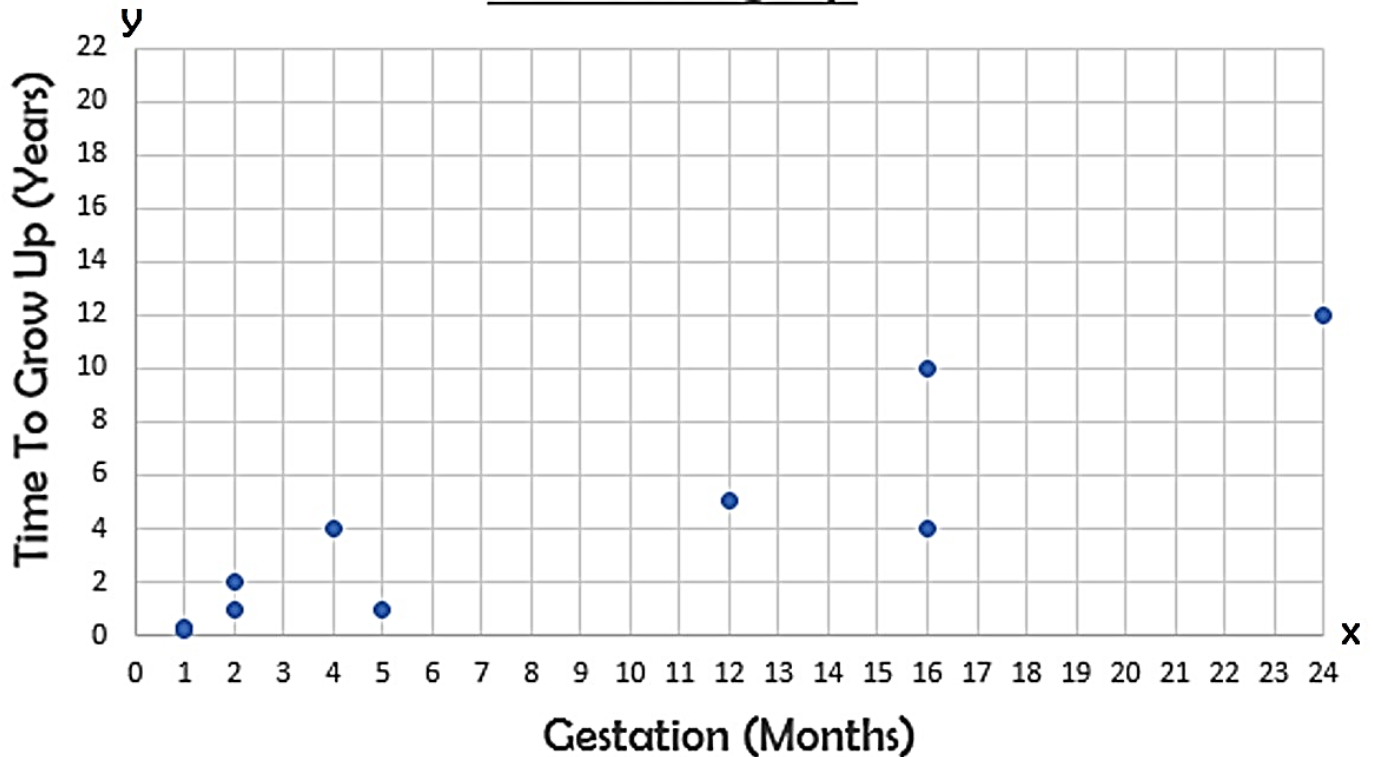
Mammal	Gestation (Months)	Time to Grow Up
Meerkat	2	2 years
Elephant	24	12 years
Lion	4	4 years
Goat	5	1 year
Harvest Mouse	1	2 months
Dog	2	1 year
Killer Whale	16	10 years
Rabbit	1	4 months
Gorilla	8	11 years
Giraffe	16	4 years
Human	9	21 years

Name:

Date:

This table has been used to make this graph, comparing a mammal's gestation length with its time to grow up.

Mammal Gestation Compared to Growing Up



Can you see any pattern? Is there a link between how long mammal babies spend in the womb (gestation length) and how long they take to grow up?

Use the information on the table to add humans onto the graph.

If there is a pattern, do you think humans fit it?

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Reproduction and Life Cycles - Activity 1: Gestation

KS1 answers: Mammal gestation

The animals ordered from shortest to longest are:

Rabbit, Dog, Lion, Goat, Elephant.

Difference between shortest and longest gestations:

Longest = Elephant = 24. Shortest = Rabbit = 1. $24 - 1 = 23$

The difference between the shortest and the longest is *23 months.*

Humans would come between the *Goat* and the *Elephant*.

Growing Up

Time To Grow Up	Tally
Group 1: Less than a year	II
Group 2: Between a year and 5 years	IIII
Group 3: More than 5 years	III

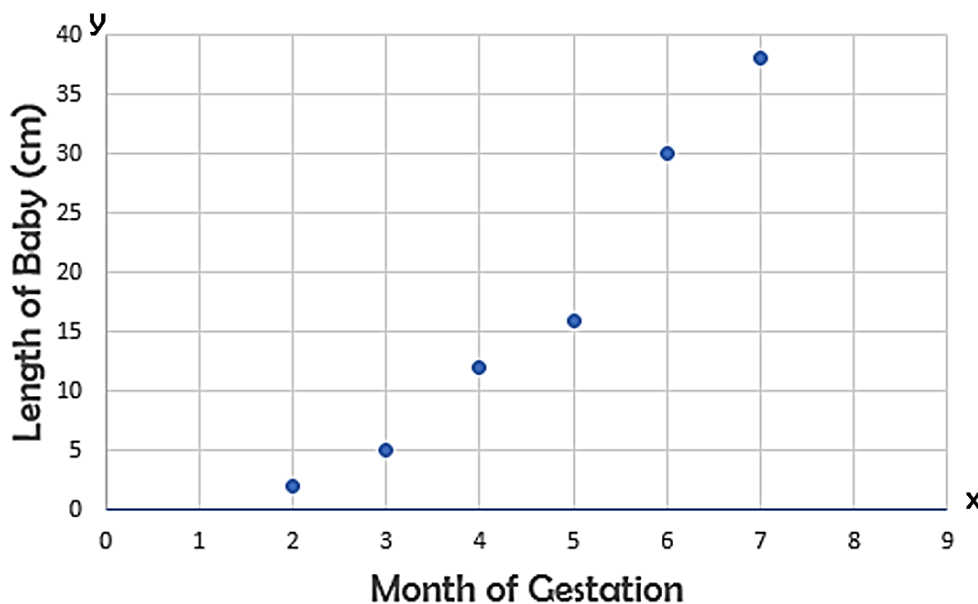
'Group 2: Between a year and 5 years' has the most mammals in it.

'Group 1: Less than a year' has the least mammals in it.

Humans belong in 'Group 3: More than 5 years' group.

KS2 answers: Human Gestation

Length of Baby (cm) During Pregnancy



Trend: *The length of the baby increases with month of gestation/time.*

Name:

Date:

The greatest change in length is between which months? How much longer does the baby get in this time?

Change in month 2-3: $5 - 2 = 3$

Change in month 3-4: $12 - 5 = 7$

Change in month 4-5: $16 - 12 = 4$

Change in month 5-6: $30 - 16 = 14$

Change in month 6-7: $38 - 30 = 8$

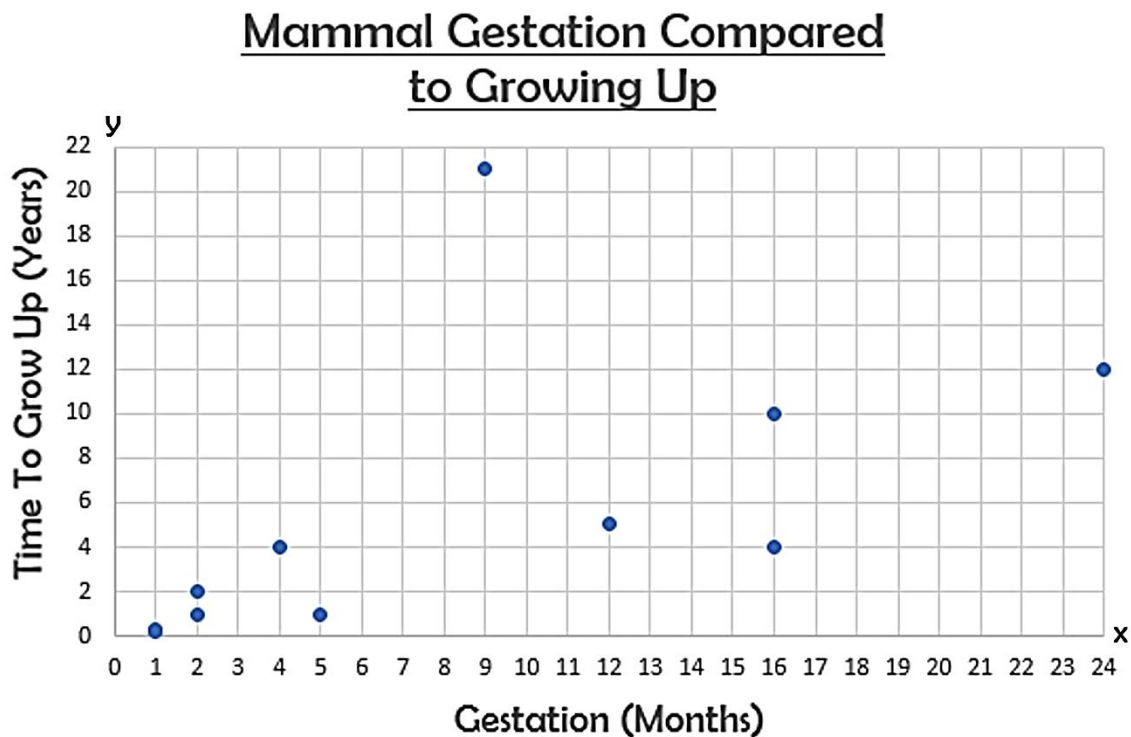
The greatest change in length is between *month 5 to 6*. The baby gains *14cm* in length between these months.

The trend shows that the baby increases with gestation month/time, so the baby is likely to continue increasing in size for month 8 or 9, so its length will increase.

Mammal Gestation

Pattern: There is a pattern: as month of gestation increases, the time taken to grow up tends to increase. (Or the shorter the gestation, the quicker the mammal grows).

Graph with humans included:



Do humans fit any pattern?

Humans do not really fit the pattern. Their time to grow up is much longer than their gestation would suggest it would be. The graph suggests that their time taken to grow up should be closer to around 4 years than 21.

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Reproduction - Notes for parents and guardians

This activity has been designed to support learning about reproduction, gestation and growing up. This is based on national curriculum objectives from Y2 and Y5 respectively.

This maths activity asks children to interpret and create tables, charts and graphs. These should have been covered in school, but we have attempted to remove any barriers to learning, including the possibility that drawing axes and constructing charts and graphs has not been taught yet. The plotting of points on time and scatter graphs is a Y4 skill, so Y5 students should be able to do this. If your child is in lower KS2 (Y3 or Y4) then they can of course have a go at the sheet, but they may need extra support. Please find the appropriate work sheet for your child's key stage. The answers are at the end of the document.

The real focus should be on interpreting what the charts, tables or graphs show and what conclusions can be drawn from this.

Discussion points to support learning:

- You can encourage your children if they are interested to research other mammal's gestation periods and see if they fit any patterns in this data. If not, is there a biological reason why?
- Your child may be interested in their own growth during pregnancy. If you have this data, why not share it with them?
- The data given is the *average* length or times. What does this mean? If someone does not fit the average lengths or times is that a bad thing?
- In this information-heavy world, it is important that children learn to assess the accuracy and bias of media they consume. Interpreting graphs is a great way to introduce concepts like fake news or misleading statistics.

Reproduction is a difficult topic that can invite lots of questions from curious children! This statistics activity will help to reinforce the scientific nature of studying reproduction to hopefully stave off any giggles!