## WALT: identify the growth of babies to children.

WILF: - Recognise the key milestones of baby and child development

- Interpret and understand growth charts.
- Create a line graph
- Research.


Lesson ideas and images are from the Hamilton Trust

## Which order do you think these milestones go in? (Note, these are

 averages and vary from child to child.)| Talks fluently and <br> holds long <br> conversations |
| :--- |
| Can hold a simple <br> conversation |


| Very dextrous and |
| :--- |
| writes well |



| Develops grace and |
| :--- |
| balance in sport and |
| other physical activities |

Starts to use words
Remembers rhymes
and songs

Starts to read


Starts to talk in sentences Jumps, hops and can walk backwards

Sits unsupported

| Learns to eat | $0-2$ <br> years | $2-3$ <br> years |
| :---: | :---: | :---: |
|  | $3-5$ <br> years | $5-7$ <br> years |
|  | $7-10$ <br> Skips | $10-12$ <br> years <br> years |

|Begins to ride a bike
Throws and catches a

Can hold detailed discussions and share opinions

Starts to use pens and
pencils to mark make
Crawls then walks

Crawls then walks
Walks and runs
Identifies colours ball

| Recognises familiar |
| :--- |
| faces and objects |

Starts to understand
abstract ideas
Remembers past
events

These are averages, so are not the same for every child.

0-2 years
Sits unsupported
Crawls then walks
Cries
Starts to use words
Recognises familiar faces and objects
Learns to eat


2-3 years
Walks and runs
Starts to use pens and pencils to mark make
Remembers rhymes and songs
Begins to ask questions
Starts to talk in sentences
Identifies colours

3-5 years
Jumps, hops and can walk backwards Draws recognisable figures Brushes teeth and dresses themselves Can hold a simple conversation
Remembers past events
Starts to recognise sounds in words

## 5-7 years

Throws and catches a ball
Skips
Begins to ride a bike
Talks fluently and holds long conversations
Starts to read
Uses scissors accurately

## 7-10 years

Develops grace and balance in sport and other physical activities
Controls speed when running
Writes clearly
Can hold detailed discussions and share opinions
Read a range of books independently

## 10-12 years

Develops strength for games like tennis
Plays sport with increased skill
Increased physical stamina
Very dextrous and writes well
Enjoys discussion and debate and discusses a variety of topics with knowledge and understanding
Starts to understand abstract ideas


## Now watch the rest of the video from last week you'll need to start at 1 minute 25 seconds.

https://www.bbc.co.uk/teach/class-clips-video/growing/zd7rkmn

To track the growth of babies to children, scientists use growth charts.
These are measured per centile, which means per 100 children (think of percent, to help you remember this! ()). This example is from 0-4 years.
These compare the age of the child to their height and weight. If a child is in the $50^{\text {th }}$ centile for height, that means that per 100 children, 50 are shorter and 50 are taller.

You can click on the graph for a closer look.

If you want to challenge yourself at this point, this is the link to the girl's growth chart - can you see any differences?
https://www.rcpch.ac.uk/sites/default/files/Girls 04 years growth chart.pdf

These graphs are what Scientists use to create their averages from development.
They also measure head length from the age of 0-2. This can tell them a lot the child"s growth.

They can also predict how about how tall the child is going to grow from this.

The head of a newborn baby is about one quarter of its total length, whereas an adult's head is about one seventh of the adult's height. What does this tell us about the growth of the head?

## Proportions

In our science, we will use a much less challenging line graph to read.

This graph shows three different children's growth. What do you notice about the rate of growth as they get older?


Human growth is affected by the health of the baby and child: the nutrients and caring that they receive is very important. That is why humans need to stay with an adult to be cared for, to make sure that they stay healthy and warm with the right food, plenty of water and a warm environment. (Chronic (bad) illnesses can also affect the growth of babies.)
Other mammals need a different amount of time being cared for. The following mammals stay with their mother for:


- Elephants - 16 years
- Tigers - 2-3 years
- Gorillas - 3-6 years
- Giant Panda-1.5 years


Birds generally become independent and leave the nest within a month.
Most reptiles, fish and amphibians are left to fend for themselves, but there are exceptions!

## Your Activity:

Today I would like you to do two things, if you can, for your book!

1) Explore child development on this website: Click on

Childhood $\overline{\overline{=x}}$
As a child you learn to walk and talk, run and jump, go to the toilet alone, eat with
cutlery, read and write, and make friends! By the age of 10 a child has grown and changed proportion dramatically. The brain develops rapidly and makes lots of new connections, enabling children to acquire Don't look at the 11-13 year old, yet. this image.


Age $7-10$

Then, make a fact file about the milestones of babies to children as they develop. By this, I mean the physical milestones. You can do this in age phases or stages as you please (e.g. Stage 1, Stage 2, Stage 3).
2) Using these milestones, or your own if your adult can help you to remember them, make a line graph of a child's growth from birth to twelve, then, in a different colour, predict with the line how their height will continue as they get older. If you are doing your own, this prediction can start from your age now (9 or 10). The example line graph is on the next slide.


I predict that my/ a child's growth will... because the data shows that....

