

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Body Maths: Scatter graphs

Scatter graph plotting Foot length against laa

DR = 2.6

200 by 76
Typical real door

Body Maths: Scatter Graphs

Download ActivInspire, PowerPoint and Teacher Notes from:

<https://spiremaths.co.uk/bmscatter/>

Table of Contents

Body Maths: Scatter graphs	1
Body Maths: Scatter Graphs.....	2
IWB/PowerPoint Screens (most build up to finish like this)	3
Overview	14
The Lesson Script.....	14
Further reading	16
Worksheet 1: Data Collection	17
Worksheet 2: Scatter Graphs (Height v Laa).....	18
Worksheet 3: Scatter Graphs (Head circumference and Crown to Chin).....	19
Worksheet 4: Scatter Graphs (Nose and Foot).....	20

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Body Maths: Scatter Graphs

OBJECTIVE(S):	Collect 6 body measurements and use these to draw scatter graphs. Links to mathematics from other cultures, art, ratio and proportion (historically) as well as units of measurement.
DESCRIPTION and OVERVIEW:	<ol style="list-style-type: none">1. Africa Counts (Clauda Zaslavsky) building Chagga houses, measurements used.2. Examples of Chagga houses still available.3. Laa (span) head-circumference, hat size and height.4. Quotes from 1973 edition about Chagga process to build house.5. The Chagga now, information about Tanzania.6. Door ratios (height of door (laa) \div head circumference.7. Vitruvian Man by Leonardo, what do you notice?8. Ratios of the body from Vitruvius, Roman architect.9. Data collection (6 items); calculate 3 value; make your door.10. Baby adult ratio, how do the skeletons compare when same height11. Baby adult ratio gif12. Data collection methods: details.13. Shoe sizes to cm; feet and inches to cm (for heights).14. Draw a scatter graph: show how to plot points.15. People doors: are pupil doors all the same as real doors and more.16. Laa is UK measurement too – the fathom (6 feet = 183 cm).17. Vitruvian Man, Leonardo and link to measurements.18. Data collection and charts – example excel input page.19. Page to paste data/scatter graphs.20. Link to podcast from BBC on Vitruvius (42 minutes).21. Vitruvian Man: baby and adult to same height. Find proportions.22. Vitruvian Man: 21st century. Make measurements.23. Further info: 3 pages from The Genesis of Form by Mark Verstockett
EQUIPMENT:	There are 4 photocopiable master three providing axes and a grid for scatter graphs, the other a data collection sheet (for e.g. homework).

Overview and Detailed plan follow the screens.

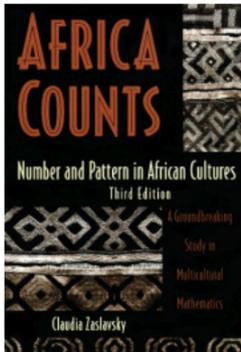
Data (measurements) could be collected as pre-lesson homework: see worksheet at the end

Worksheets are given at the end (pages 17 onwards).

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All
IWB/PowerPoint Screens (most build up to finish like this)

Chagga homes 1 Africa Counts: Number and pattern in African Cultures by Claudia Zaslavsky



Africa counts describes how traditional Chagga people from the foothills of Mt Kilimanjaro used to construct their traditional beehive-shaped houses.



Figure 13-4 The author in front of a beehive-shaped Chagga house (Mt. Kilimanjaro). Village Museum, Dar es Salaam.

What do you think they did to decide its size and proportions?

Its base radius
Door height
Door width?

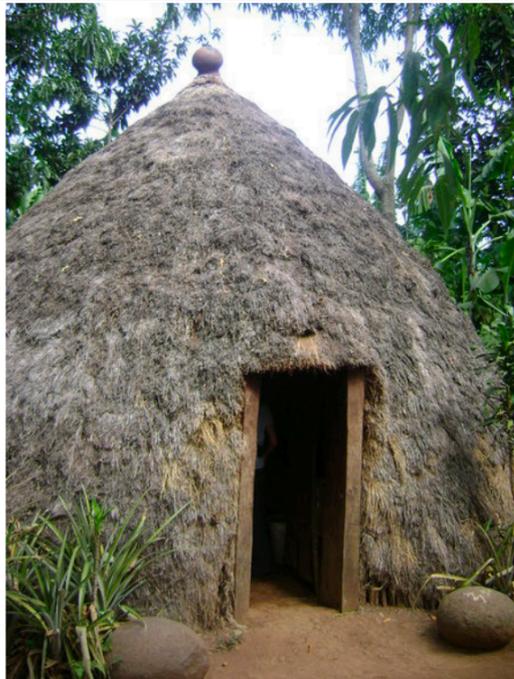
Chagga homes 2



http://www.tonynatsoulas.com/stories/chagga/chagga_hut_1.jpg



<https://www.tanzania-experience.com/wp-content/galleries/chagga-experience/chagga-1-of-6.jpg>



<https://www.travelblog.org/Photos/3365440>

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Chagga homes 3 Africa Counts: Number and pattern in African Cultures by Claudia Zaslavsky

Base radius - decided by the **laa** of the tallest man
arms outstretched, the distance from one fingertip to the other

Door height = one laa

Door width = head circumference of the man

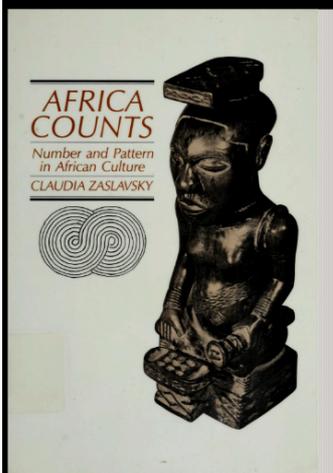
Questions

1. If the base radius was 2-3 laa, would you be able to fit one of these houses into the room you are in now?
2. Would you be able to fit through your own door without ducking or would you hit your head?
3. When this book was written (1973) many men would know their hatsize (in inches). What is yours (in cm)?
4. Are you square, is your height the same as your laa?



Figure 13-4 The author in front of a beehive-shaped Chagga house (Mt. Kilimanjaro). Village Museum, Dar es Salaam.

Chagga homes 4



The above is original edition of 1973 and a page is shown here:

Click pink buttons to see it enlarged 

When a Chagga built his traditional beehive-shaped house on the fertile slope of Mount Kilimanjaro, he called upon the tallest man he knew. His neighbour would lie flat upon the site of the prospective home, with his arms outstretched. The span from the fingertips of one hand to those of the other is called a *laa*. To mark off the circumference, the builder tied a hoe to a rope of length equal to the desired radius, two to three laa. The rope was attached to a peg, and as he walked around this peg, he drew a circle with his hoe. The door height was equal to the span of the man's arms; its width was the circumference of his head, measured by a string.



Today (ie 1973) the Chagga people, prosperous from the proceeds of their coffee cultivation, build roomy oblong houses. But the traditional beehive shape is preserved in the immense entrance hall to the Kibo Art Gallery supported in the centre by a massive tree trunk. In a sedentary agricultural society, the round house often takes the form of a cylindrical structure topped by a cone-shaped roof.

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

The Chagga: now

<http://www.climbmountkilimanjaro.com/about-the-mountain/the-chagga/chagga-origins/>



The main Chagga town of Moshi, with the twin peaks of Kilimanjaro, Kibo and Mawenzi, forming a dramatic backdrop

On the southern slopes of Mt. Kilimanjaro, Africa's highest mountain, live the Chagga people, also called Chaga, Waschagga, Jagga, or Dschagga. Administratively, the area lies in the Kilimanjaro region in northern Tanzania, south of the border with Kenya. The region is further divided into three districts—Hai to the west, Rombo to the east, and Vunjo in the center.

<http://www.encyclopedia.com/topic/Chagga.aspx>

<http://www.climbmountkilimanjaro.com/about-the-mountain/the-chagga/social-structure-and-village-life/>



A Chagga hut and shelter at Marangu's Chagga Museum.



Machame village by Mgr Le Roy (1893)

<https://www.climbmountkilimanjaro.com/about-the-mountain/the-chagga/chagga-origins/>

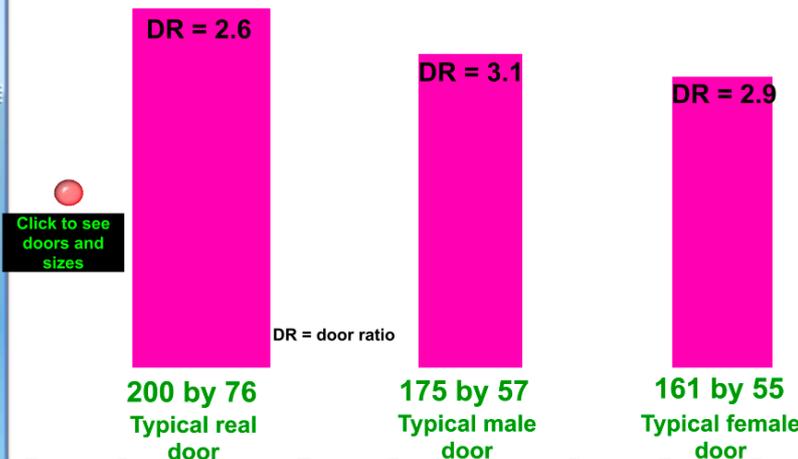
People doors

Collect your measurements: **Laa**
Height
Head circumference

https://en.wikipedia.org/wiki/Template:Average_height_around_the_world

Questions: Can you get through your own door?
What is your door ratio (door height divided by door width)?
Is your door the same shape as someone else's door?
What about doors in your house, your school, other buildings?

Click to see average M/F height from this website



Country/Region	Average male height	Average female height
United Kingdom – England	177.8 cm (5 ft 10 in)	163.3 cm (5 ft 4½ in)
United Kingdom – England	175.3 cm (5 ft 9 in)	161.9 cm (5 ft 3½ in)
United Kingdom – Scotland	175.0 cm (5 ft 9 in)	161.3 cm (5 ft 3½ in)
United Kingdom – Wales	177.0 cm (5 ft 9½ in)	162.0 cm (5 ft 4 in)

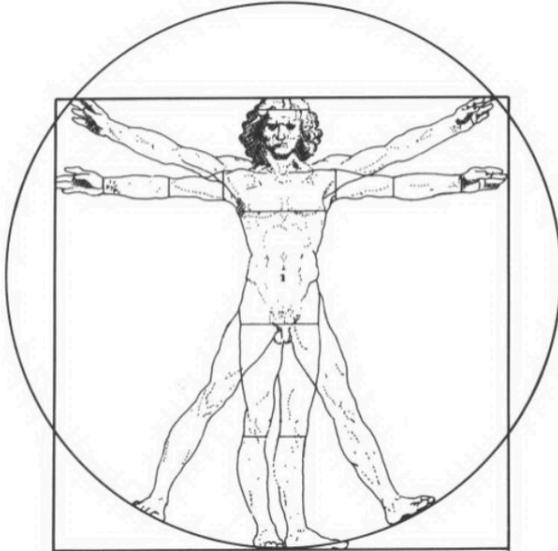
SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Vitruvian Man

Activity Maths: Levels 6 and 7: Dave Miller, 15

Leonardo (1452 - 1519) called this drawing Vitruvian man.
Why do you think this is?
What do you notice about the diagram?



Marcus Vitruvius Pollio

Activity Maths: Levels 6 and 7: Dave

Vitruvius was Roman and lived in the first century BC. He was an architect, engineer and author and wrote one of the first books on architecture called *De architectura*, a book for Roman architects. This gave some information about the proportions of the body. Here are two statements:

a third part of the face is from the line between the eyebrows to the bottom of the nostrils

the foot is a sixth of the height of the body

To consider this collect more data:

Chin to crown (face length)

Nose length (eyebrows to nostrils height)

Foot length

All in cm

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Data Collection

Activity Maths: Levels 6 and 7: Dave

Collect your measurements (all in cm):

Laa

Height (see next page for ft and inches conversion to cm)

Head circumference

Chin to crown (face length)

Nose length (eyebrows to nostrils height)

Foot length (see next page for shoe size conversion to cm)

Calculate your:

Door ratio (laa ÷ head circumference)

Chin ÷ Nose (how close to 3 is it?)

Height ÷ Foot (how close to 6 is it?)

Make with graph paper and cut out your:

Door (using your measurements - laa and head circumference) use graph paper with a scale of 1 cm (paper) to 10 cm (real size)

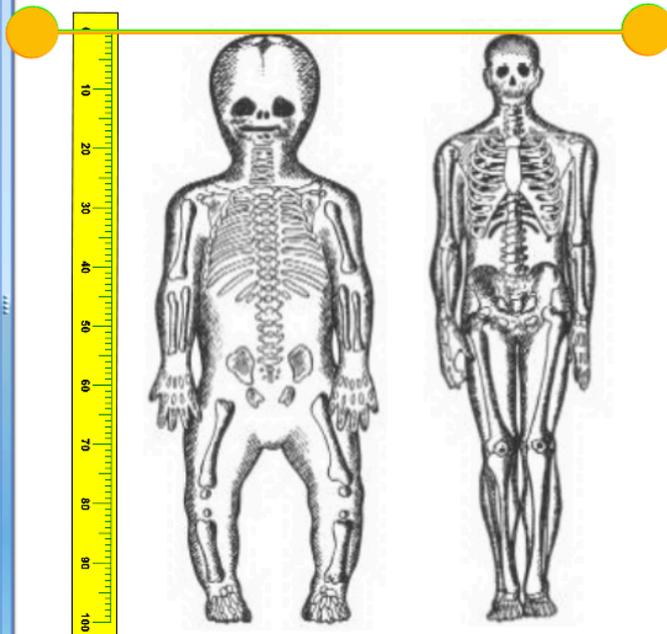
Do you think people have changed since the time of the Romans? if so how, and why?

Vitruvian Man: Baby and Adult to same height

Activity Maths: Levels 6 and 7: Dave

What ratios can you find in this diagram?

Baby and adult are scaled up/down so they are the same height.



Move the orange lines up/down to allow comparisons to be made. Complete the chart on the right.

	Baby	Adult	Baby ÷ Adult	Baby : Adult
Height				
Head (chin to crown)				
Wrist to top middle finger				
Shoulder bone to crown				
Knees to crown				
Cubit (elbow to top of middle finger)				
Chin to bottom of nostrils				
Nose = Bottom of nostrils to eyebrows				

*Rounded to 1 decimal place where req

Click on grid above to see/hide answers.

SPIRE MATHS

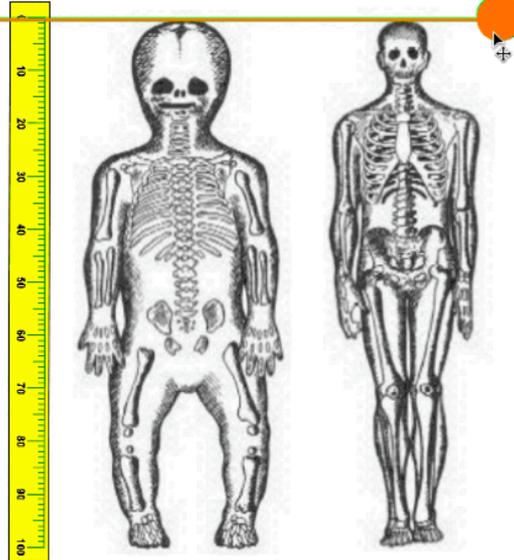
Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Vitruvian Man: Baby and Adult to same height

Activity Maths: Levels 6 and 7: Dave

What ratios can you find in this diagram?

Baby and adult are scaled up/down so they are the same height.



	Baby	Adult	*Baby ÷ Adult	*Baby : Adult
Height				
Head (chin to crown)				
Wrist to top middle finger				
Shoulder bone to crown				
Knees to crown				
Cubit (elbow to top of middle finger)				
Chin to bottom of nostrils				
Nose = Bottom of nostrils to eyebrows				

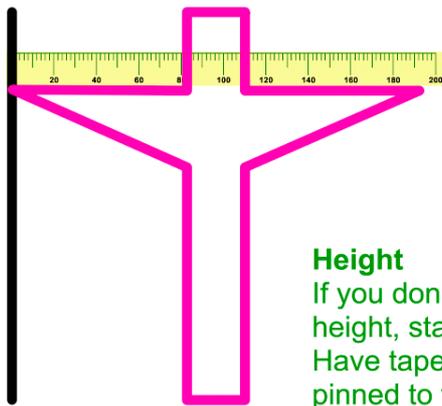
*Rounded to 1 decimal place where required

Move the orange lines up/down to allow comparisons to be made. Complete the chart on the right.

Data Collection: methods

Laa (cm)

Stand facing wall from straight edge, or wall, arms stretched as below. Have tape measure pinned against wall. Record laa.



Height

If you don't know your height, stand back to wall. Have tape measure pinned to wall.

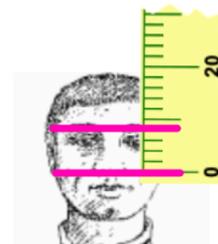


Crown to chin



Head circumference

Above the ears where you would wear a hat. Have help.



Nose length

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Data Collection: shoe size conversion

<https://www.shoesize.com/kids/conv>

M	Cm
3.5	23.2
4	23.5
4.5	23.8
5	24.1
5.5	24.4
6	24.8
6.5	25.1
7	25.4
7.5	25.7
8	26
8.5	26.7
9	27
9.5	27.3
10	27.6
10.5	27.9
11	28.3
11.5	28.6
12	29.2
12.5	29.8

F	Cm
2	21.5
2.5	21.9
3	22.5
3.5	22.9
4	23.2
4.5	23.8
5	24.1
5.5	24.4
6	25.1
6.5	25.4
7	25.7
7.5	26
8	26.4
8.5	26.7
9	27
9.5	27.6
10	27.9
10.5	28.3

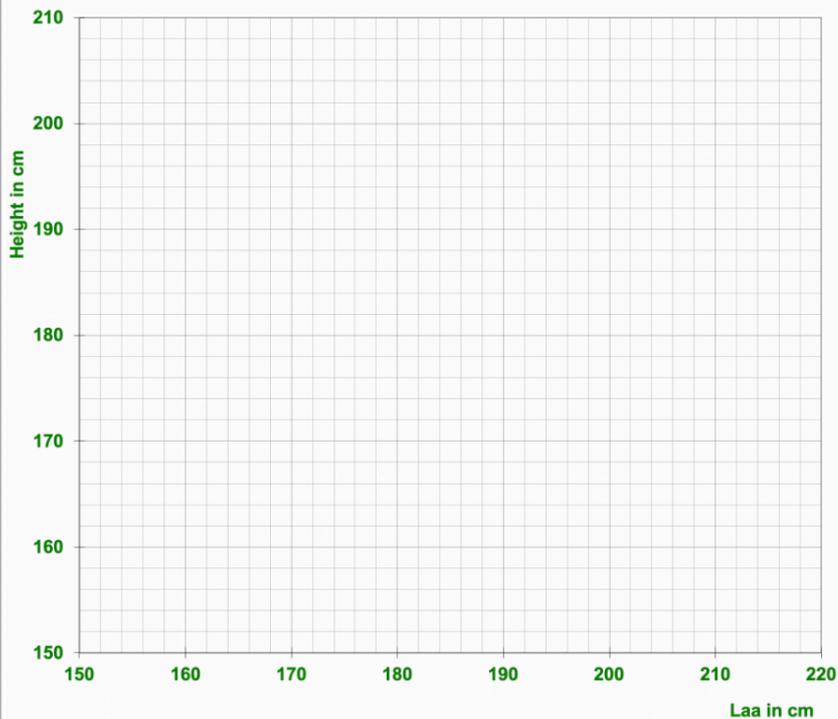
Child	Cm
13	19.4
14	20
1	20.3
1.5	20.6
2	21.3
2.5	21.6
3	22
3.5	22.5
4	22.9
4.5	23.2
5	23.8
5.5	24.1
6	24.5

Feet and inches	Cm
3ft 6 inches	107
3ft 7 inches	109
3ft 8 inches	112
3ft 9 inches	114
3ft 10 inches	117
3ft 11 inches	119
4ft 0 inches	122
4ft 1 inches	124
4ft 2 inches	127
4ft 3 inches	130
4ft 4 inches	132
4ft 5 inches	135
4ft 6 inches	137
4ft 7 inches	140
4ft 8 inches	142
4ft 9 inches	145
4ft 10 inches	147
4ft 11 inches	150

Feet and inches	Cm
5ft 0 inches	152
5ft 1 inches	155
5ft 2 inches	157
5ft 3 inches	160
5ft 4 inches	163
5ft 5 inches	165
5ft 6 inches	168
5ft 7 inches	170
5ft 8 inches	173
5ft 9 inches	175
5ft 10 inches	178
5ft 11 inches	180
6ft 0 inches	183
6ft 1 inches	185
6ft 2 inches	188
6ft 3 inches	191
6ft 4 inches	193
6ft 5 inches	196
6ft 6 inches	198

Drawing a scatter graph

Scatter graph plotting Height against laa



Drag pink dots onto scatter graph

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

People doors

https://en.wikipedia.org/wiki/Template:Average_height_around_the_world

Questions: Can you get through your own door?
 What is your door ratio (door height divided by door width)?
 Is your door the same shape as someone else's door?
 What about doors in your house, your school, other buildings?

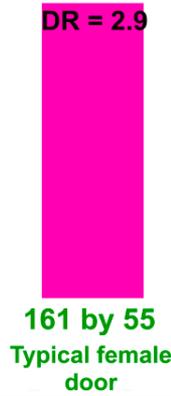
Click to see average M/F height from this website

How do you compare your doors with other people and know if they are the same shape?

Click to see doors and sizes



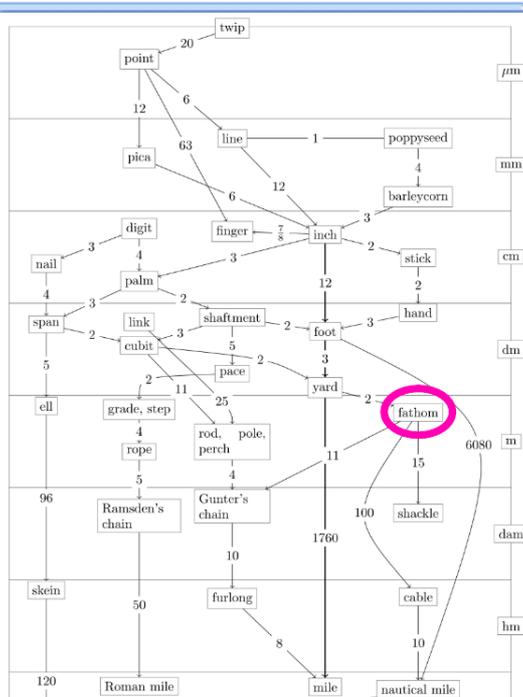
DR = door ratio



Country/Region	Average male height	Average female height
United Kingdom – England	177.8 cm (5 ft 10 in)	163.3 cm (5 ft 4½ in)
United Kingdom – England	175.3 cm (5 ft 9 in)	161.9 cm (5 ft 3½ in)
United Kingdom – Scotland	175.0 cm (5 ft 9 in)	161.3 cm (5 ft 3½ in)
United Kingdom – Wales	177.0 cm (5 ft 9½ in)	162.0 cm (5 ft 4 in)

What is the UK unit equivalent to the laa?

https://en.wikipedia.org/wiki/English_units#/media/File:English_length_units_graph.png



An old print depicts a seaman casting the lead—using a lead-weighted line to determine water's depth in fathoms.

Show old UK units Hide old UK units Show laa equivalent

The Fathom

Show/Hide old print of use of this unit

<https://undertheblog.org/2013/10/22/oceanography-goes-six-feet-under/>

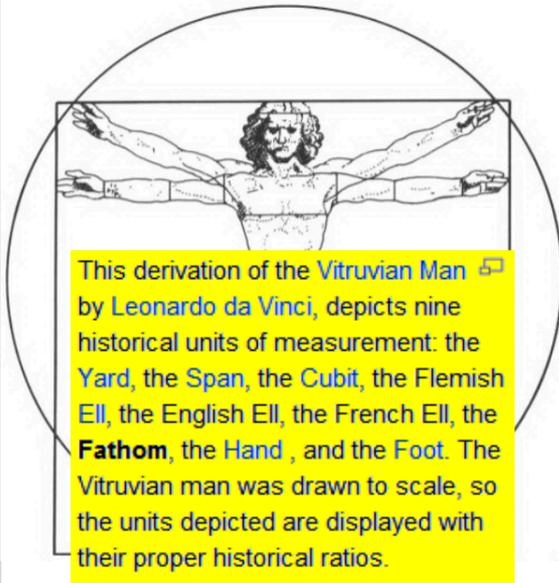
SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

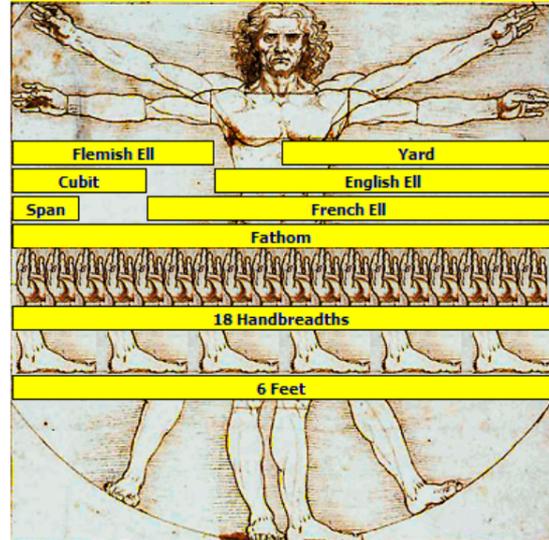
Vitruvian Man

Activity Maths: Levels 6 and 7: Dave Miller, 19

Leonardo (1452 - 1519) knew of the work of Vitruvius and made the drawing below which shows the geometrical relationship between the square and the circle, and the geometrical proportions of the human body.



This derivation of the Vitruvian Man by Leonardo da Vinci, depicts nine historical units of measurement: the Yard, the Span, the Cubit, the Flemish Ell, the English Ell, the French Ell, the Fathom, the Hand, and the Foot. The Vitruvian man was drawn to scale, so the units depicted are displayed with their proper historical ratios.



https://commons.wikimedia.org/wiki/File:Vitruvian_Man_Measurements.png

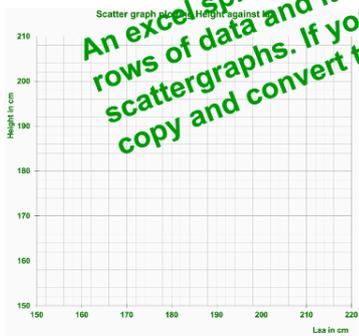
Click these for more information

Data Collection and Charts

Activity Maths: Levels 6 and 7: Dave

Enter data below here and some scatter graphs will be generated automatically

Number	M/F	LAA in cm	HEIGHT in cm	HEAD CIRC in cm	CROWN to CHIN in cm	NOSE in cm	FOOT LENGTH in cm
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							



An excel spreadsheet is available that will let you add 40 rows of data and it will automatically create these scattergraphs. If you know about excel you will be able to copy and convert the scattergraphs.

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Data Collection and Scatter graphs

Activity Maths: Levels 6 and 7: Dave

Paste your data/scatter graphs here for pupils to use, then delete this

Podcast on Vitruvius

<http://www.bbc.co.uk/programmes/b01d2kzx>

The screenshot shows the BBC Radio 4 website interface for the 'In Our Time' podcast. At the top, there is a navigation bar with 'Home', 'Episodes', 'Archive', 'Podcasts', 'Features', 'Quizzes', 'FAQs', and 'Contact Us'. The main content area features a large illustration of Vitruvius's 'De Architectura' showing a man with a compass and a wheel. Below the illustration, the title 'Vitruvius and De Architectura' is displayed, along with a 'Listen now' button. To the right, there is a 'Last on' section showing the date 'Thu 15 Mar 2012' at '21:30' on 'BBC RADIO 4'. Below that, there are 'More episodes' listed, including 'Lyrical Ballads' and 'Moses Mendelssohn'. A 'Download' button is visible at the bottom left of the main content area.

[Download MP3](#)

Podcast on Vitruvius starts at 1 minute - you may need to sign in to the BBC: it is free

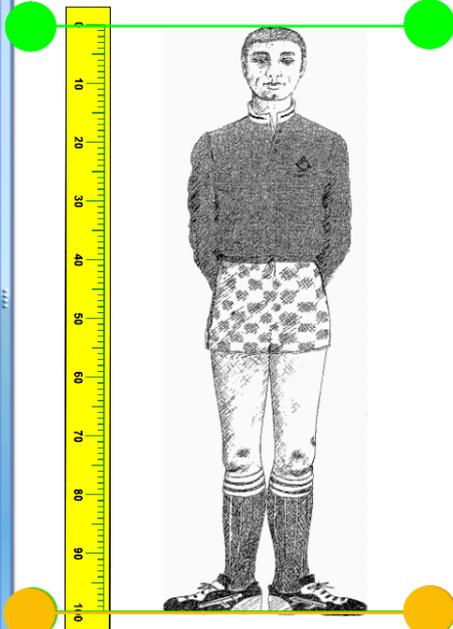
SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Activity Maths: Levels 6 and 7: Dave Miller, 199

Vitruvian Man: 21st century

What ratios can you find in this diagram?



Height	100
Head (chin to crown)	13
Nose = Bottom of nostrils to eyebrows	4
Head ÷ Nose	3.3

Move the orange lines up/down to allow comparisons to be made. Complete the chart on the right.

Click on grid above to see/hide answers.

Further information

MAN AND THE GEOMETRY OF THE BODY

The geometr fascination for down, he is h and symmetri breasts and te of his body, i length of a th fingers), the i height of a m As early as the proportio measured fro length of its i wrist to the t chest to the c length and fr

When those ba appear in any of its own way, dis of importance t invention of t technical and in Fundamentall signals the atta culture, while a new communic through intens

As early as the 1st century B.C., **Vitruvius** made a study of the proportions of the human body. He found that the face, measured from the chin to the hairline, is one-tenth the length of its owner's body. So too is the distance from the wrist to the top of the index finger. From the middle of the chest to the crown of the head is one-quarter of the body's length, and from the chin to the crown of the head is one-eighth of that length. From the chin to the base of the nose is one-third the length of the face, and is equal to the distance from the base of the nose to the bridge of the nose, and from the bridge of the nose to the hairline. The foot is one-sixth the length of the body, and the forearm a quarter of its length. At the centre is the navel (fig. 53).

human body and geometry.

THE GENESIS OF FORM

FROM CHAOS TO GEOMETRY
Mark Verstockett

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Overview

Highly recommended you follow the script below. This body maths lesson:

- is about Scatter graphs
- concerns data collection (and sense of such)
- considers historical and cultural information
- relates mathematics to the world around us
- indirectly relates to ratio and proportion
- looks at classical proportions/measurements
- considers UK measurements

Basically 6 body measurements, in cm, are to be collected:

1. laa (span from fingertip to fingertip)
2. height
3. head circumference
4. crown to chin distance
5. nose length (a vertical distance)
6. foot length

A spreadsheet is provided

- add measurements (pupils do this while making and comparing their doors)
- creates 5 scatter graphs (each of the measurements 2 to 6 above plotted against the laa in cm)
- lets you/pupils make other scatter graphs – need excel charting skills

The Lesson Script

We start with the work of Claudia Zaslavsky and her brilliant book Africa Counts. In this she writes about and shows pictures of the homes of the Chagga people who live in the foothills of Mount Kilimanjaro, which is in Tanzania.

Look at the dwellings shown here

Quoting from the book:

“When a Chagga built his traditional beehive-shaped house on the fertile slope of Mount Kilimanjaro, he called upon the tallest man he knew. His neighbour would lie flat upon the site of the prospective home, with his arms outstretched. The span from the fingertips of one hand to those of the other is called a *laa*. To mark off the circumference, the builder tied a hoe to a rope of length equal to the desired radius, two to three *laa*. The rope was attached to a peg, and as he walked around this peg, he drew a circle with his hoe.”

So this leads to a question – look at the room you are in, would you fit a Chagga dwelling in it?

Finally Claudia Zaslavsky tells us how the dimensions of the ‘door’, or perhaps more correctly the entrance to the Chagga home were decided. What do you think?

You might have worked out how they decided the height of the door, but you are very unlikely to have worked out the body measurement used to decide the width of the door.

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

"The door height was equal to the span of the man's arms; its width was the circumference of his head, measured by a string."

So if you collect your own laa and your own height, would you get through your own door without bending and without hitting your head?

Do you know roughly what your head circumference is?

Well these are three pieces of data that you will need to collect: your laa (that is your arm span), your height and your head circumference.

Interestingly this measurement (of the laa) has a parallel in Britain – do you know what that is?

It is the fathom, a nautical measurement used to measure the depth of water. It probably came about from the way in which sailors measured the depth of the water, using a rope with a lead weight at the end of it and pulling the rope taut across their chest from one fingertip to fingertip then letting the lead weight drop down into the water. Each pull of the rope across the chest would mean another fathom of rope would drop straight down into the water.

Leonardo da Vinci made a very famous drawing that used a number of body measurements including the fathom – it is called Vitruvian man and consists of the front view of a man apparently with four legs - two together and two spread out (one on each side). The man also has four arms – two straight at right angles to his trunk, one each side, and the other two also to his side and stretched straight but higher. The man is inside a square and a circle so that his arms and legs that are at right angles, as well as the top of his head touch the sides of the square and the other four limbs touch the circumference of the circle.

The centres of the circle and the square are the same – at the navel of the man.

He based this work on the writings of Vitruvius who was a Roman who lived in the first century BC and wrote one of the first books on architecture. In this book he made some statements about the proportions of the body. Here are a few of them:

- the head from the top of the head to the chin is one eighth of the height of the body
- the nose from the bottom of the nostrils to the line between the eyebrows is one third
- the foot is one sixth of the height

We will take some more measurements to see what if what he said is still true – the three extra measurements we will collect are:

- your head height – from the top of your head to your chin
- your nose size (its height) from the bottom of your nostrils to the line between the eyebrows
- your foot size

Having collected the information, put them into the spreadsheet in my computer in the correct place – the column headings are for your data.

You should also cut out your own 'door' to scale using a scale of 1 to 10 remembering that it is based on your laa and your head circumference. From here you can work out your door ratio which is found by dividing the height of your door by its width. Write this on your door.

SPIRE MATHS

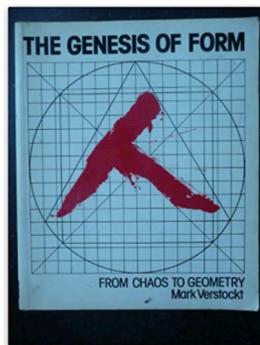
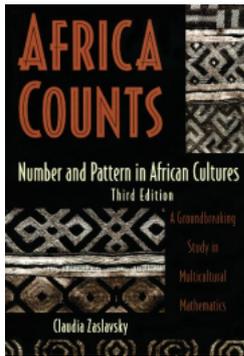
Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

You should compare your door ratio and your door with that of others and also with any doors near to you.

Once we have this information you will draw Scatter graphs for these data and consider correlation.

You can now start collecting the data you need, and think about what any Scatter graphs that you can draw from these data might look like and whether any of the data sets might show correlation.

Further reading



Details of these at:

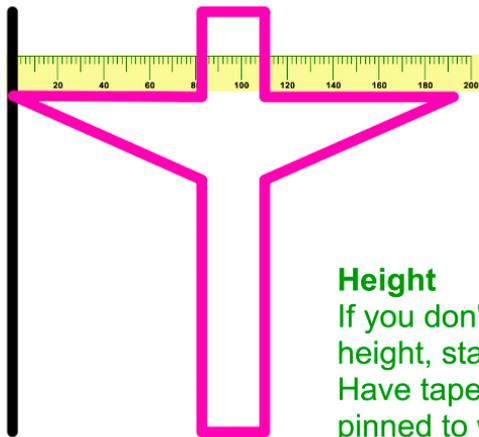
<https://spiremaths.co.uk/bmscatter/>

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Worksheet 1: Data Collection

Laa (cm)
Stand facing wall from straight edge, or wall, arms stretched as below. Have tape measure pinned against wall. Record laa.



Height
If you don't know your height, stand back to wall. Have tape measure pinned to wall.



Head circumference
Above the ears where you would wear a hat. Have help.



Crown to chin



Nose length



Complete (all in cm) – see above for details

Laa	
Height	
Head circumference	

Chin to crown (face length)	
Nose length (eyebrows to nostrils height)	
Foot length	

Calculate your:

Door ratio (laa ÷ head circumference) round to 1 decimal place	
Chin ÷ Nose (how close to 3 is it?) round to 1 decimal place	
Height ÷ Foot (how close to 6 is it?) round to 1 decimal place	

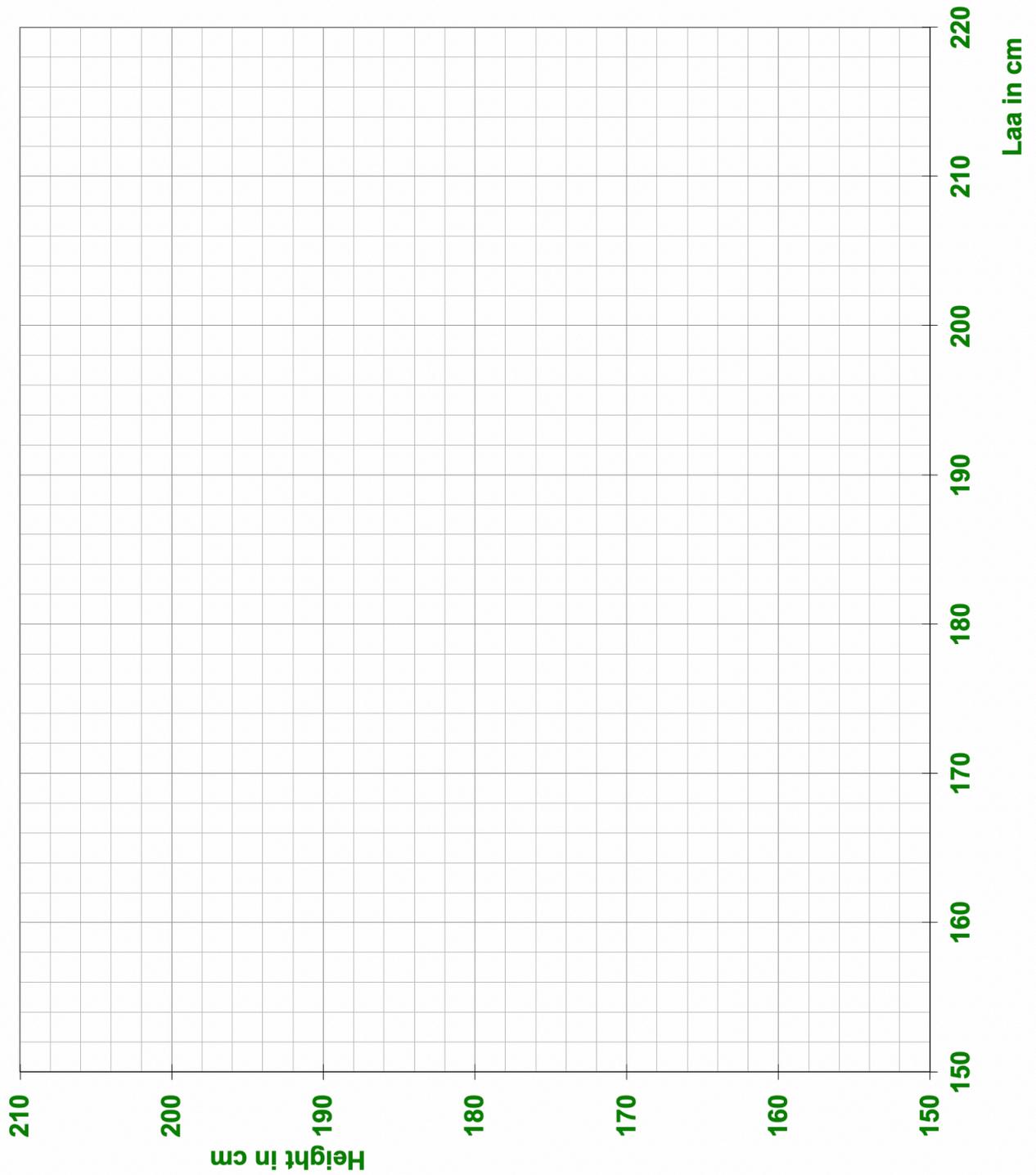
Make with graph paper and cut out your door (using your measurements - laa and head circumference as height and width of your door) use graph paper with a scale of 1 cm (paper) to 10 cm (real size)

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Worksheet 2: Scatter Graphs (Height v Laa)

Scatter graph plotting Height against laa

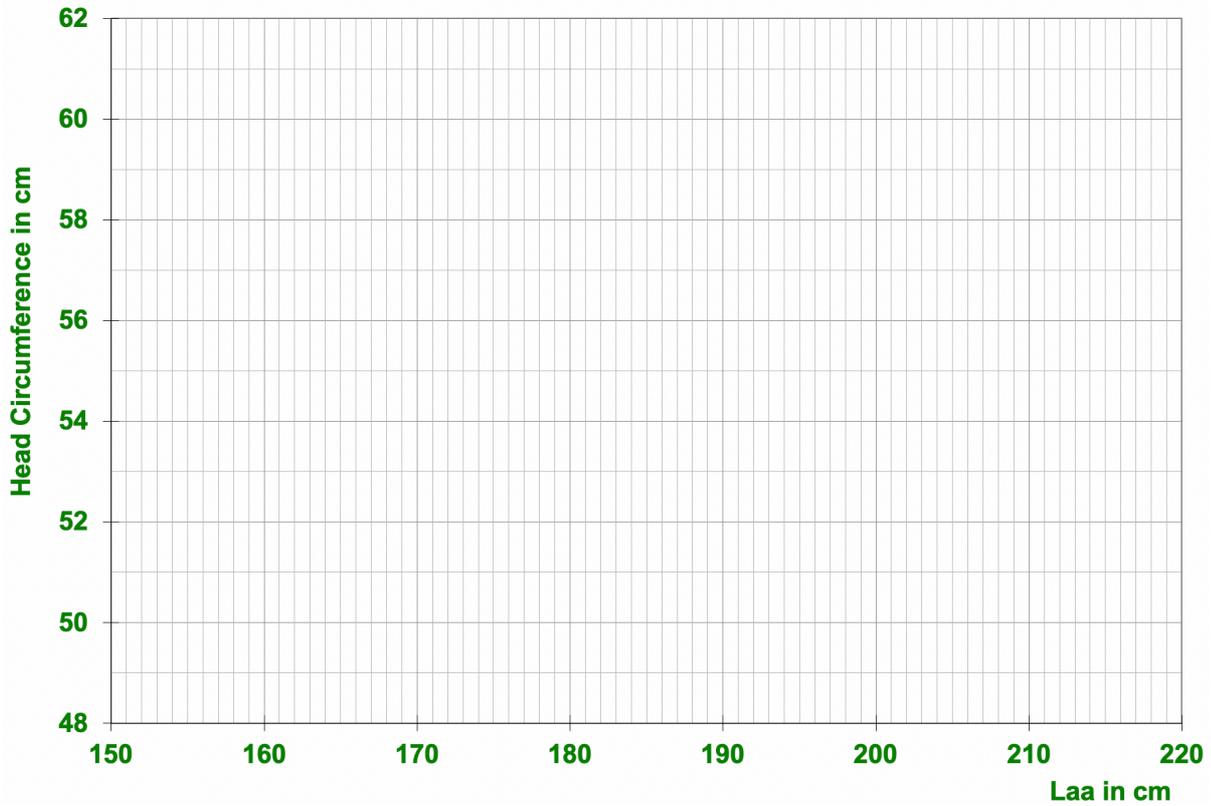


SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Worksheet 3: Scatter Graphs (Head circumference and Crown to Chin)

Scatter graph plotting Head Circumference against laa



Scatter graph plotting Crown to Chin against laa

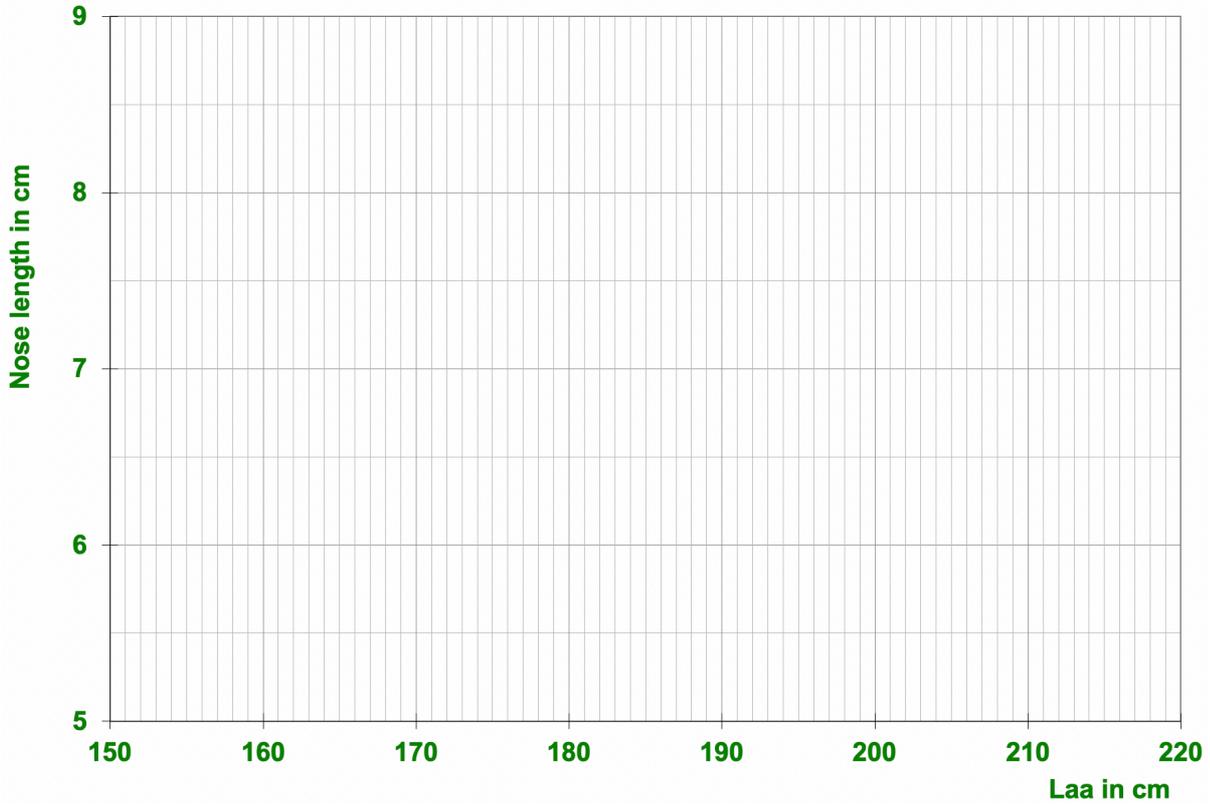


SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Worksheet 4: Scatter Graphs (Nose and Foot)

Scatter graph plotting Nose length against laa



Scatter graph plotting Foot length against laa

