

Height chart



Location

Ground floor, All About Us exhibition

In a nutshell

Plot your height on a giant graph to compare yourself to other visitors of similar age and height.

What to do

Students measure their height and place a sticker on a large graph to plot their age and height. Students can then compare their height to visitors of similar age and view an overall trend of height related to age.

Time Required

KS1 & KS2 2 minutes per student.

What's happening?

Our maximum height is determined by our genetic makeup and our environment. The genetics of height is not fully understood, we know that tall parents are likely to result in tall children and a child who is well nourished is likely to achieve a greater height than a malnourished one. Over 80% of the variation in height is thought to be due to genetics, the remainder being affected by environmental effects such as diet. A study in 2010 analysed the DNA from 180,000 individuals looking for tiny differences called single nucleotide polymorphisms (SNPs). The researchers found SNPs associated with height in 180 regions of the human genome. Many of these were found near genes known to be involved with abnormal skeletal growth, bone mineral density, rheumatoid arthritis and obesity.

Growth in height stops at puberty, on average 15.5 years for girls and 17.5 years for boys. Human growth is allometric – different parts of the body grow at different rates. The brain and skull grow rapidly after birth, reaching 90% of adult size by the age of 6 years old.

Curriculum links

Curriculum links	
KS1/2	<p>Science - Working scientifically</p> <ul style="list-style-type: none"> - (Yr 1 & Yr 2) observing closely, using simple equipment - (Yr 1 & Yr 2) performing simple tests - (Yr 3 & Yr 4) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - (Yr 3 & Yr 4) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables - (Yr 5 & Yr 6) taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate - (Yr 5 & Yr 6) recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs <p>Mathematics - Number – number and place value</p> <ul style="list-style-type: none"> - (Yr1) read and write numbers from 1 to 20 in numerals and words - (Yr2) read and write numbers to at least 100 in numerals and in words <p>Mathematics - Measurement</p> <ul style="list-style-type: none"> - (Yr1) compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] measure and begin to record the following: lengths and heights - (Yr2) choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit, using rulers. - (Yr3) measure, compare, add and subtract: lengths (m/cm/mm) - (Yr 6) use, read, write and convert between standard units, converting measurements of length <p>Mathematics - Statistics</p> <ul style="list-style-type: none"> - (Yr 6) interpret and construct pie charts and line graphs and use these to solve problems <p>Cooking and nutrition - Key stage 2</p> <ul style="list-style-type: none"> - understand and apply the principles of a healthy and varied diet

Relates to:

Workshops & Theme Days	Shows	Trails	Other exhibits
<ul style="list-style-type: none"> • Body basics (KS1) • Digest this! (KS2) • Brain and body theme day (KS1 & KS2 lower) 	<ul style="list-style-type: none"> • How my body works (KS2) 		<ul style="list-style-type: none"> • How much DNA? • Genome explorer • How to build a human • Where is DNA

