Investigation 1
How do I measure up?

Our body measurements can be fascinating.

Did you know that your arm span could be the same as your height?

Make a collection of your own body measurements and investigate the relationships between them.

Create a life-sized graph and see how many interesting comparisons you can make.

Could your leg be twice as long as your arm? How does the length of your ear compare with the length of your little finger?

Topics
Before you start the Investigation you need to know...

- MG1 Measurement with metres .........................p 100
- MG2 Measurement with centimetres .....................p 102
- MG3 Grams and kilograms ................................ p 104
- SP3 Column graphs .........................................p 136
- SP5 Interpreting graphs ......................................p 140

Understanding the Investigation

Read and plan.

Make sure you understand the meanings of: arm span, relationships, circumference, personality, comparisons, double, life-sized, fascinating and compare.

Read and discuss the rubric.

Download your Investigation plan. This will help you with the organisation and understanding of the Investigation.

Teacher note

- Comprehensive lesson notes, suggestions and resources are available in iMaths 3 Teacher Book.
- The Tear-out and Investigation plan for this Investigation can be downloaded from imathsonline.com.au.
2 Get ready to measure.
Look at Tear-out 1, My data (p179). This is where you will record your personal measurements. Paste a photo of yourself on your page.

As a class, brainstorm parts of your body that would be suitable to measure.

On your My data page, make a list of the parts of your body that you will measure.

Using maths

3 Measure and record your details.
Find a partner. With your partner, discuss how you could make accurate measurements of parts of your body. String, tape measures, rulers and rolls of paper could be used.

Ask your partner to take your measurements. Write them on your My data page.

4 Make a column graph.
Use butcher’s paper and string, or strips of paper to make a life-sized column graph of your measurements.

Name your graph. Label each axis and column and write measurements on the vertical axis.

Can you see any interesting relationships between the measurements?

Is any measurement half or double another?

Reasoning and reporting

5 Make interesting comparisons.
Write some interesting sentences comparing your measurements. For example: The circumference of my head is almost three times my handspan.

Hand in your My data page and explain how you made your measurements as accurate as possible.

Decorate your column graph. Display it to the class and describe your findings.