

What point size are you?

Secondary Lesson Plan



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Source

[Working Mathematically: Investigations](#)

Learning area

Mathematics

Level

Middle secondary

Description

Students construct a graph of the relationship between the point size and the height, in millimetres, of a range of font sizes.

Purpose

To investigate a linear relationship by gathering and graphing data.

Duration

1 session

Possible outcomes

In relation to *Mathematics — a curriculum profile for Australian schools*, work on this activity could lead to the achievement of outcomes in the following strands:

- **Working mathematically**
Investigating Conjecturing Using problem-solving strategies Applying and verifying
- **Number**
Equations
- **Algebra**
Equations and inequalities

Materials required

- computer for word processing and printer
- rulers graduated in millimetres
- magnifying glasses
- graph paper

Procedure

1 Posing the question

Ask the class, 'If you were the letter 'i', what point size would you be?'

Discuss ways in which this problem may be solved. Possible solutions include:

- printing letters of different point sizes and measure the height in centimetres or millimetres;
- comparing graph height with point size to discover the nature of the relationship. (The relationship is a linear one and should be easily deduced from the graph.)

2 Gathering data

Students work in groups to construct a graph relating point size and height in millimetres. Each group may choose a different font.

To enlarge the smaller letters, students may use a magnifying glass or photocopy the letter next to a millimetre scale.

3 Deducing the relationship

Each group finds an equation; results are compared and discussed to reach agreement.

4 What point size are you?

Students measure each other's height. Students then use the equation to calculate their own point size.

Related products

[*Working mathematically: investigations*](#) is one of a number of products of the Mathematics Curriculum and Teaching Program of Curriculum Corporation. The following products are relevant to the teaching of mathematics in primary and secondary schools:

- *Working Mathematically: Space*, an interactive CD-ROM for upper primary and secondary students.
- [*Maths Task Centre Kit*](#) for primary and secondary students.
- [*Chance and Data*](#), a set of books, computer disks and videos for primary and secondary students.