



**Description:** Interpreting and using conversion graphs and charts.

**Numeracy Strategy reference:**

Pupils should be able to solve a problem by collecting, organizing, representing, extracting and interpreting data in tables, graphs and charts

**Task analysis:**

Pupils are required to:

- Construct line graphs.
- Understand and extract intermediate values with meanings on graphs.
- Use graphs to extract and interpret data.

**Learning Objectives:**

Pupils should understand intermediate points do or do not have meaning.  
Pupils should understand 'average' can refer to mean, median or mode.  
Pupils should begin to transfer data to a simple computer database.

**Suggested activities:**

**Oral work and mental calculation:**

Discuss the approximate equivalent between commonly used imperial and metric units (metre=3 feet, 3 inches=1 yard, 3 inches or 8cm=5 miles) and converting larger metric units to smaller, e.g. 3.540km=3540m or a smaller unit to a larger one, e.g. 5cm=0.05m.

**Teaching activity:**

Discuss with children that conversion graphs are used to convert equivalent figures between units. With the class, complete the first row of the table on the printed activity sheet and then ask the pupils to complete the remainder in groups.

Ask the children to complete a graph from the table, converting pounds to Euros. In groups, pupils should then complete the questions.

**Plenary:**

Pupils to report back on conversion graphs and tables and to discuss how they can be useful in everyday situations.

**Resources:**

Printable activity sheet covering conversion tables and charts. Excel spreadsheet.

**Learning outcomes:**

Pupils will be able to complete a conversion table from graphical information and vice versa. Pupils should be able to formulate and answer questions from their own work.

**Extension activities:**

- Draw and use a 12 times table graph.
- Make a simple computer database. Using the facilities of the database compare and contrast the presentation of data in charts and graphs, deciding which is best for its purpose. Discuss the efficiency of a computer database compared with a paper database. Make a comparison graph of kilograms to pounds then formulate and answer questions using the graph.

**Extension activities (cont):**

- Solve a 'story' problem involving units of time to cook different meats according to different weights. Beef must be cooked for 60 minutes for every kilo, chicken must be cooked for 30 minutes for every kilo. Complete the table of cooking times.

Kg	1	1.5	2	2.5	3	3.5	4
Beef cooking time in mins							
Chicken cooking time in mins							

Children should create a line using the data and draw up questions on intermediate points on the graph for other to answer.