

DATA LEVEL C

LEVEL C.2.

COLLECT, ORGANISE, REPRESENT AND INTERPRET DATA USING PICTOGRAMS, BLOCK GRAPHS, AND BAR CHARTS INCORPORATING THE SCALES 1:2, 1:5, 1:10 AND 1:100

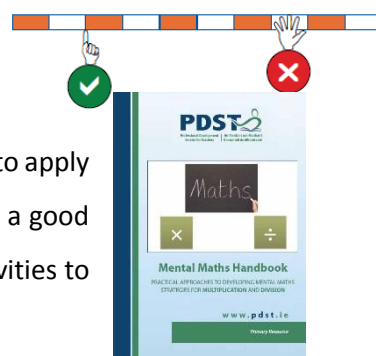
TEACHING NOTES

At this level, the learning experiences in Level C.1. can be extended to incorporate scales.

SAMPLE LEARNING EXPERIENCES

Reading Scales

Reading scales is an important skill when interpreting bar charts⁶⁰. A counting stick can be used to develop this concept with pupils. Hold the counting stick either horizontally or vertically to correspond with the axis in question. When reading bar charts, it is a specific point that represents a specific number. Therefore use a finger to point to the divisions, not the whole hand⁶¹. Deciding on what scale to use requires students to apply their knowledge of multiplication. Therefore, it is very helpful for pupils to have a good knowledge of these facts. The PDST Mental Maths Resource contains many activities to consolidate multiplication facts.



Birthday Pictograms

This activity is an extension of an earlier activity in Level C.1.

1. Facilitate a discussion based on the data collected and assembled by the pupils. Encourage pupils to discuss the advantages of using a pictogram and also the limitations.
2. Draw pupils' attention to the large number of birthdays in July. Elicit from pupils ideas on how this information could be represented quicker e.g. using half a symbol to represent one pupil or using one full symbol to represent a pair of pupils.
3. Pupils can then recreate the birthday pictogram using the selected scale for example 1:2



What are the advantages of using a pictogram to represent this data? Seán said there were a lot of pictures to do for July as there are 12 July birthdays. I wonder could we think of a way to create a pictogram which would need less drawings but show the same information.

Further Development:

1. Pupils can identify pictograms from media sources which incorporate larger scales such as 1:100.

⁶⁰ Crown, (2009), p.16.

⁶¹ Crown, (2009), p.16.