## **Statistics**

## Selected National Curriculum Programme of Study Statements

Pupils should be taught to:

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

### The Big Ideas

Data need to be collected with a question or purpose in mind.

Tally charts are used to collect data over time (cars passing the school, birds on the bird table).

### Mastery Check

Please note that the following columns provide indicative examples of the sorts of tasks and questions that provide evidence for mastery and mastery with greater depth of the selected programme of study statements. Pupils may be able to carry out certain procedures and answer questions like the ones outlined, but the teacher will need to check that pupils really understand the idea by asking questions such as 'Why?', 'What happens if ...?', and checking that pupils can use the procedures or skills to solve a variety of problems.

#### Mastery

Generate data with the children on a daily basis. For example, use an IWB to identify who is having school dinner or a packed lunch.

Present data in different ways: pictograms, tally charts, block diagrams and simple tables.

Check whether children can answer questions about the data. For example: which is most popular? Which is least popular?

Children may be able to answer simple retrieval questions, but can they extend to finding the total number or finding a difference?

## Mastery with Greater Depth

Four children played racing games at break time. Each time they won a game they took a counter.

Sam	<b>600</b>
Tom	
Sally	•
Ally	<b>00%</b> 0

Present the information in a different way to make it clearer and answer the following questions:

Who won the most races?

How many more races did Ally win than Sally?

Does the information answer the question:

Who is the fastest runner?

# Mastery with Greater Depth

The picture below shows each friend's favourite activity.

Fill in the number of children under each picture.

Ten friends went to the fair.

Challenge children to compare different ways of representing the same information.

	111	***	***	**
Number of children				

# What's the same? What's different?

Ice creams sold in one week		
Monday	$\nabla\nabla\nabla\nabla\nabla\nabla\nabla$	
Tuesday	$\nabla\nabla\nabla\nabla\nabla\nabla$	
Wednesday	$\nabla\nabla\nabla\nabla\nabla$	
Thursday	$\nabla\nabla\nabla\nabla\nabla\nabla$	
Friday	$\sqrt[3]{\sqrt{2}}\sqrt[3]$	
Saturday	$\nabla\nabla\nabla\nabla\nabla\nabla$	
Sunday	$\nabla$	

Cars in the car park on Monday at 10 oʻclock		
Red	₩1	
Blue	₩	
Black	####III	
Silver	11111111	
White	WII.	
Other	₩III	

Mastery with Greater Depth