# Fellside Community Primary School Computing Curriculum

# Year 1 – Grouping data

## Unit introduction

This unit introduces pupils to data and information. Labelling, grouping, and searching are important aspects of data and information. Searching is a common operation in many applications, and requires an understanding that to search data, it must have labels. This unit of work focuses on assigning data (images) with different labels in order to demonstrate how computers are able to group and present data.

Pupils will begin by using labels to put objects into groups, and labelling these groups. They will demonstrate that they can count a small number of objects, before and after the objects are grouped. Pupils will then begin to demonstrate their ability to sort objects into different groups, based on the properties they choose. Finally, pupils will use their ability to sort objects into different groups to answer questions about data.

**Note:** Throughout this unit, pupils will be logging on to the computers, opening their documents, and saving their documents. Depending on how your school's system is set up, additional support and time may be required to facilitate these steps, and consideration should be given as to how this will impact the timings of activities in each lesson.

## Overview of lessons

| Lesson | Brief overview | Learning objectives |
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| 1 Label and match | In this lesson, pupils will begin to understand that objects have many different labels that can be used to put them into groups. They will name different objects and begin to experiment with placing them into different groups. Pupils will also label a group of objects, and begin to understand that an object can fit into more than one group depending on the context. | To label objects<br>• I can describe objects using labels<br>• I can match objects to groups<br>• I can identify the label for a group of objects |
| 2 Group and count | In this lesson, pupils will begin to think about grouping objects based on what the objects are. They will demonstrate the ability to count a small number of objects before they group them, and will then begin to show that they can count groups of objects with the same property. Pupils will also begin to learn that computers are not intelligent and require input from humans to perform tasks. | To identify that objects can be counted<br>• I can count objects<br>• I can group objects<br>• I can count a group of objects |
| 3 Describe an object | In this lesson, pupils will begin to understand that objects can be described in many different ways. They will identify the properties of objects and begin to understand that properties can be used to group objects; for example, objects can be grouped by colour or size. Finally, pupils will demonstrate their ability to find objects with similar properties and begin to understand the reason that we need to give labels to images on a computer. | To describe objects in different ways<br>• I can describe an object<br>• I can describe a property of an object<br>• I can find objects with similar properties |

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| 4 Making different groups | In this lesson, pupils will classify objects based on their properties. They will group objects that have similar properties, and will be able to explain how they have grouped these. Pupils will begin to group a number of the same objects in different ways, and will demonstrate their ability to count these different groups. | To count objects with the same properties<br>• I can group similar objects<br>• I can group objects in more than one way<br>• I can count how many objects share a property |
| 5 Comparing groups | In this lesson, pupils will choose how they want to group different objects by properties. They will begin to compare and describe groups of objects, then they will record the number of objects in each group. | To compare groups of objects<br>• I can choose how to group objects<br>• I can describe groups of objects<br>• I can record how many objects are in a group |
| 6 Answering questions | In this lesson, pupils will decide how to group objects to answer questions. They will compare their groups by thinking about how they are similar or different, and they will record what they find. They will then share what they have found with their peers. | To answer questions about groups of objects<br>• I can decide how to group objects to answer a question<br>• I can compare groups of objects<br>• I can record and share what I have found |

## Progression

This unit will introduce pupils to data and information. It will introduce pupils to the concept of labelling and grouping objects based on their properties. Pupils will develop their understanding that objects can be given labels, which is fundamental to their future learning concerning databases and spreadsheets. In addition, pupils will begin to improve their ability to use dragging and dropping skills on a device.

Please see the learning graph for this unit for more information about progression.

## Curriculum links

### National curriculum links

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Use technology safely and respectfully

### Education for a Connected World links

**Copyright and ownership**

- I know that work I create belongs to me (Y1)
- I can name my work so that others know it belongs to me (Y1)

## Assessment

**Formative assessment**

Assessment opportunities are detailed in each lesson plan. The learning objective and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Pupils are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

## Subject knowledge

You will need to be aware that labelling, grouping, and searching are important aspects of data and information. Searching is a common operation in many applications, and requires an understanding that to search data, it must have labels. This unit of work focuses on assigning data (images) with different labels in order to demonstrate how computers are able to group and present data.

You will also need to be familiar with the term 'property'. A property is used to describe an object. For example, a ball will have a colour, which might be red; 'colour' is the property name, and 'red' is a specific property of the ball. Pupils will be introduced to the term 'attribute' in Year 2 – 'Pictograms'. The terms 'property' and 'attribute' are interchangeable, however, 'property' has been used with younger pupils to make it more accessible.

A key concept throughout this unit is the understanding that computers are not intelligent. Though they may seem like they are able to complete tasks autonomously, they are using input from humans, for example, searching for images that have been labelled by a human, or 'counting' data that has been grouped by humans.

Throughout the unit, the term 'object' is used to describe anything that can be labelled with properties, eg animals, pencils, or trees. When talking about objects, they are named to make it easier for humans to know what other humans are talking about, eg 'tree'. The name may change depending on context (sometimes 'tree' is enough, but sometimes 'oak tree' may be required), but it is always a property

that an object can be labelled with. A label is a property used to describe an object, eg ‘green’. This is the data that is collected about the object.

You will also need to be aware that a collection of data is called a ‘data set’.

Enhance your subject knowledge to teach this unit through the following training opportunities:

**Online training courses**

- Raspberry Pi Foundation online training courses

**Face-to-face courses**

- National Centre for Computing Education face-to-face training courses