<table>
<tr><td>Subject: Computing</td><td>Year: 1 – Spring 2 – Data & Information – Grouping Information</td></tr>
<tr><td colspan="2">National Curriculum objectives
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).</td></tr>
<tr><td>To begin this unit, the children should have already learnt:
As this is a Year 1 unit, no prior knowledge is assumed. The unit will introduce learners to data and information. It will introduce learners to the concept of labelling and grouping objects based on their properties.</td><td>The learning in this unit will prepare the children to learn these things in the future:
Year 2
Data can be collected in the form of a tally chart and then progress onto presenting data in the form of pictograms and, finally, block diagrams. The data presented can be used to answer questions.

Year 3
Branching databases can help us to identify objects within sets of data and classify the objects into groups, based on what they are or their different attributes.

Year 4
Data loggers and logging software can be used to automatically capture data – they have sensors built into then. We can use data collected draw conclusions in answer to our research questions.

Year 5
Flat-file databases organise large amounts of data so that it can be easily added to, amended, stored, and accessed. We can find the data that we need by using the ‘search’, ‘filter’ and ‘sort’ functions.

Year 6
A spreadsheet is a computer application that allows users to organise, analyse and store data in a table and present information in meaningful graphs and charts. Spreadsheets are most used for organising and presenting finances (for example budgets and finance reports) because users can apply formulas and formatting to perform mathematical processes and make data easier to decipher.</td></tr>
<tr><td>Key Enquiry Question
Why have you grouped those objects together? What label could you give that group? Can computers group objects without your ideas? Could these objects be grouped differently? What is different about this (group of objects) and this (group of objects)?</td><td>The Big Idea:
Data can be numbers, words or figures. Objects can be labelled using either their names or by describing their properties. Labels can be used to place objects into groups. This helps us to count and compare data easily – computers help us do this.</td></tr>
</table>

To achieve ARE, pupils will need to be secure in the following knowledge:	
By the end of this unit, children will know: • That objects can be counted; • Information can be presented in different ways.	**Vocabulary:** **Information, data, search, label, group, program, similar, properties, different.**
By the end of this unit, children will be able to do: • Identify some attributes of an objects; • Collect some simple data; • Show that collected data can be counted; • Describe the properties of an object; • Choose an attribute to group the objects by; • Group objects by properties; • Explain that objects can be grouped by attributes; • Describe a group of objects (based on commonality).	**Useful Resources:** **Online training courses** **Raspberry Pi online training courses**

Y1

COMPUTING: DATA AND INFORMATION KNOWLEDGE ORGANISER

Overview

Grouping Data

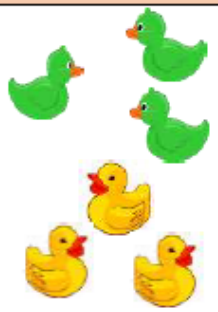
- Data can be numbers, words or figures. Information is what we can understand from looking at data.

-Objects can be labelled using either their names or describing their properties.

-Labels can be used to place objects into groups. This helps us to count and compare data easily, through looking at similarities and differences.

Grouping and Counting

-**Grouping**: The same objects can be put into different groups, depending upon their properties. Computers can help us by allowing us to put different objects into groups.



-For example, a computer can be asked to group all of the pictures that have a certain name label, e.g. 'duck', or property, e.g. yellow.

-**Counting:** Computers can be programmed to count the amounts in each group.

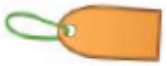
-For example, when your teacher takes the class register, the computer program can count how many ticks and crosses there are, to tell the teacher how many children are in school.

Jamie	✓
Elizabeth	✓
Ella	✗
Harry	✓
Marcus	✓

In school: 4 Absent: 1

Labels and Properties

-**Labelling:** Labels are all around us!



-Labels are the names that we give to things so that we can easily identify them.

-On computers, we can label different objects so that the computer knows what they are.

-Properties: Objects have different properties (features) that we can choose to label them by.

-Some examples of the properties of an object include its size, its colour and shape.

-We can use properties to tell computers what objects are and how to sort them.

-Describing: Objects can be described by their name labels and their properties.

-E.g. the picture here could be correctly labelled as 'dog', 'Labrador' or 'animal.'

Use describing adjectives for accuracy, e.g. big, circular, blue, old, thin, long, heavy etc.

Comparing

-**Comparing** is when we look at what is similar (the same) and what is different between objects. You can compare objects or groups of objects.

Examples of comparing words

-more than, less than, the same as, least, most, bigger, smaller, older, younger, longer, shorter, wider, thinner.

Answering Questions

-Objects can be grouped in order to **answer questions and solve problems.**

-For example, if asked how many orange items there are below, you could group them into 'orange' and 'not orange.' To find out if there is more fruit than vegetables, you could group them into 'fruit' and 'vegetables.'

Important Vocabulary

Information | Data | Search | Label | Group | Describe | Program | Properties | Similar | Different