



Knowledge Organiser for Year 2 Database

Big question: How do I show data on a pictogram?

British Values Link: Mutual Respect

(Working together in groups, sharing ideas and listening with respect, treating everyone fairly and respecting people and their choices)

National curriculum specification (KS1)

- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

In this unit, the children will:

Recognise that we can count and compare objects using tally charts

Recognise that objects can be represented as pictures

Create pictograms

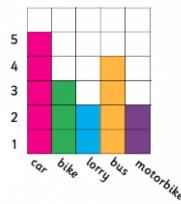
Select objects by attributes and make comparisons

Recognise that people can be described by attributes

Explain that we can present information using a computer

Grouping, Counting and Tallying	Pictograms and Block Diagrams							
<p>Grouping: Objects can be put into different groups. These groups can be made up of objects that are the same, or objects that have the same properties (features).</p> <p>Computers can help us by allowing us to put different objects into groups.</p>	<p>Pictograms: A pictogram is a chart that uses pictures to display data. They can be made using pens or paper, or they can be made using a computer. The pictogram on the right shows the favourite fruits of a group of school children. Each piece of fruit shows what each child selected.</p>							
<p>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. The computer can then tell your teacher how many children are in class</p>	<table border="1" data-bbox="809 1525 1097 1711"> <thead> <tr> <th data-bbox="809 1525 1097 1543">Favourite Fruit</th></tr> </thead> <tbody> <tr> <td data-bbox="809 1543 1097 1560">Strawberries</td></tr> <tr> <td data-bbox="809 1560 1097 1581">Pineapple</td></tr> <tr> <td data-bbox="809 1581 1097 1599">Pears</td></tr> <tr> <td data-bbox="809 1599 1097 1617">Banana</td></tr> <tr> <td data-bbox="809 1617 1097 1635">Orange</td></tr> <tr> <td data-bbox="809 1635 1097 1655">Apple</td></tr> </tbody> </table> <p data-bbox="809 1711 1097 1729">Legend:  = 1 person</p>	Favourite Fruit	Strawberries	Pineapple	Pears	Banana	Orange	Apple
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<p>Tallying helps us to record as we count. We chunk into groups of five, with the first four counts looking like sticks, and the fifth count making the 'gate.'</p>	<p>Block Charts: Block charts work in a similar way to pictograms, except each object is presented as a block. The block diagram on the right presents how different children get into school</p>							

Transport	Tally	Frequency
Walk		5
Bus	II	7
Car		4
Bike		3
Train		1



Presenting and using information

Answering questions

Key vocabulary:

data	Pieces of information, often numbers, that we collect to learn about something.
pictogram	A chart that uses pictures to display data.
group	A number of things or people that are together.
tally	A way to count things using marks or lines.
tally chart	A chart that uses tally marks to show how many times something happens.
program	Instructions that tell a computer what to do.
properties	Characteristics or features of something.
present	To show or explain something to others.

-Computer programs such as j2data can help us to create pictograms and block charts. Clicking the + and – icons add and subtract pictures from our diagram.

-Using Data: There should be a reason to collect data, and so it should be easy to read. E.g. this data could help someone know which fruits to buy if they are hosting a party, or help the school chef know which fruit to order in.

-Pictograms can be used in order to answer questions and solve problems.

-Examples may include:

- Which colour was the most popular?
- Which colour was least popular?
- How many more chose yellow than chose pink?
- What is the total of red and blue combined?

problem	Something that needs to be solved or fixed.
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Teacher Subject Knowledge:	
Seesaw links for activities in each session	<p>Lesson 1 - https://app.seesaw.me/pages/shared_activity?prompt_id=prompt.3f862434-ab85-483a-8184-a8650c4c1724&share_token=rx-T1jyqTueTsWP-97Lzog</p> <p>Lesson 2 - https://app.seesaw.me/pages/shared_activity?prompt_id=prompt.40bb94cd-527b-4c12-bbec-0ff00e22c035&share_token=expatjE3SI6kSOnRoYafUA</p> <p>Lesson 3 - https://app.seesaw.me/pages/shared_activity?prompt_id=prompt.aacb50f1-54fd-475c-8774-745d59b0f36a&share_token=k0WAnmO5QFKst0cUK70f9A</p> <p>Lesson 4 - https://app.seesaw.me/pages/shared_activity?prompt_id=prompt.fa0f11e4-9f66-4720-9e3c-82273751fc2e&share_token=sDQR65l7Qa6AqmhuM2rvpQ</p> <p>Lesson 5 - https://app.seesaw.me/pages/shared_activity?prompt_id=prompt.6368351f-ef00-4d6e-8899-fdc7d01488c6&share_token=wPX5E3cCTFiszNqM3f8jYw</p> <p>Lesson 6 - https://app.seesaw.me/pages/shared_activity?prompt_id=prompt.195bc017-ca1c-43cb-8d75-17180c73d104&share_token=gbTe8xL3QTmqrNDY-SHVJw</p>
Links to learning	JWP-Teaching Resources-Computing-Planning-Year 2-Spring 1
Progression	This unit progresses students' knowledge and understanding of grouping data. It builds on the Year 1 Data and Information unit where learners labelled objects and grouped them based on different properties. In Year 3 learners develop their understanding of attributes (properties) using branching databases to structure data according to different object attributes.
Maths links	<p>Building on Year 1 number and place value:</p> <ul style="list-style-type: none"> Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: 'equal to', 'more than', 'less than' ('fewer'), 'most', 'least' <p>Year 2</p> <ul style="list-style-type: none"> 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 ask and answer questions about totalling and comparing categorical data