


Subject	Topic/Key Question	Year Group	Term	Vocabulary
Computing	Introduction to Data	EYFS	Autumn 2	 <ul style="list-style-type: none"> • Sorting • Groups • The same (similarities) • Different (differences) • Branching database • Pictogram • Pictures

By the end of this unit children will

- Be able to sort objects into different groups and categories
- Be able to identify similarities and differences between objects
- Be able to explain how they have sorted objects
- Understand a simple branch database
- Be able to create and interpret a simple pictogram

Lesson Sequence	Key skill	Teaching Activities (Possible cross curricular opportunities)	Resources/ Enhancements to provision for following week
Lesson 1	To understand how to sort and categorise objects. To explain how items have been sorted and categorised.	<p>1. Ask the children to explore and play with the loose parts that you have laid out. While they play, observe how they naturally sort and categorise the objects.</p> <p>2. Become involved in the play too, using some of the suggested prompts as a guide, and use language related to sorting and categorising. The children will naturally join in with you.</p> <p>Prompts for learning</p> <p>I am going to sort out these beads. I will put the pink ones in here, the blue ones in here, and the green ones in here.</p> <p>These pipe cleaners are longer than the straws.</p> <p>I am going to put all the soft things on this side and all the rough things on this side.</p> <p>I'm going to make a pattern. I'm going to start with all the glass beads and then I will add the buttons.</p> <p>I wonder whether there are more (beans) than (buttons)... ?</p> <p>How many beads do you have in total? Let's count them!</p> <p>I think I have one more pine cone than you. Let's share to make it equal.</p>	<p>A collection of loose parts (variation in size, shape, colour and texture)</p> <p>Boxes or baskets for children to sort and categorise the loose parts into (egg boxes and muffin tins work well)</p>

Lesson 2	<p>To understand how to sort and categorise objects.</p> <p>To explain how items have been sorted and categorised.</p>	<ol style="list-style-type: none"> 1. Put the children into groups of four or five and ask them to sort themselves in order of height, from tallest to smallest. 2. Let the children work together to sort and organise themselves. After a few minutes look together at the results. Ask each group how they managed the task. Talk about any problems and work together to find a solution. 3. Give the groups a new task this time. Choose from: <ol style="list-style-type: none"> a. sorting by eye colour b. sorting by hair colour c. sorting by clothes (jumper and cardigans, trousers and skirts) d. sorting by shoe size 4. Now ask the groups to sort themselves again, this time choosing a category for themselves (without guidance from you). When each group has finished, ask them how and why they have sorted themselves in that way. 	Objects for sorting – range of colours, shapes, sizes
Lesson 3	<p>To understand how to sort and categorise objects.</p> <p>To explain how items have been sorted and categorised.</p>	<ol style="list-style-type: none"> 1. Ask all the children to stand up. Explain that you are going to ask them all a series of questions. If they answer yes to those questions, they need to keep standing up. If they answer no to the questions, they need to sit down. 2. Ask the group questions about themselves (see examples below) until there is only one child left standing. 3. Now change the game by silently choosing one pupil in the class. Tell the children you have chosen one pupil but won't tell them who you are thinking of. 4. Ask all the children to stand up again. This time, choose a child to ask the yes/no question: "Do they have...?" You must answer yes or no. 5. If you answer yes, the children who the question applies to stay standing, the rest sit down. 6. At the end of the game, the pupil you silently chose should be the one left standing! 7. When everyone is sitting back down, talk to the children about the way in which you sorted them. Explain that this way of sorting is called 'sorting data' – you used information about them to sort them into groups. <p>Example questions to ask the children:</p> <p>Do you like cheese?</p> <p>Do you have a sister?</p> <p>Do you walk to school?</p> <p>Do you wear glasses?</p> <p>Do you like the rain?</p>	
Lesson 4	To understand how to sort and categorise objects	<ol style="list-style-type: none"> 1. Gather a group of approximately eight children at one end of the outdoor area. 2. Ask the children to recall the games from the previous lesson and talk about some of the ways in which their group was sorted (by eye colour, clothing type etc.) 	<p>Chalk (for the adult)</p> <p>Pen and paper (optional)</p> <p>Camera (optional)</p>

	<p>To explain how items have been sorted and categorised</p> <p>To explore and understand the concept of branch databases</p>	<p>3. Explain that you are going to do a similar activity today but this time you are going to record the results as you do so.</p> <p>4. Ask the group a question: “Do you have blue eyes?” then draw two arrows on the ground, one labelled ‘yes’, the other labelled ‘no’. Ask the children to follow the relevant arrow and form a new group at the end of it.</p> <p>5. Continue by asking each group a question, each time drawing a new set of arrows. Keep going until there is only one child at the end of each arrow.</p> <p>6. Show the children where you started and talk through what happened. Explain that this way of sorting is called a branch database.</p> <p>7. Repeat again, this time asking the children to think of a yes/no question each time.</p>	
Lesson 5	<p>To understand how to represent data in a pictogram</p> <p>To understand how to read a simple pictogram</p>	<p>1. Draw a large graph on the whiteboard, or use a large piece of graph paper. Write numbers up the side of the graph to reach around 2/3 of the total number of children in the class, while the children watch and count with you.</p> <p>2. Hand out an envelope to each child with a set of the cut-out Activity: Fruit pictures inside.</p> <p>3. Draw a simple picture of each fruit (banana, orange, pear, apple, strawberry) at the bottom of each column.</p> <p>4. Ask the children if they like bananas. If they answer yes, they come and stick their picture of a banana on the column. Talk about where each picture must be positioned – that it must stay in the column and each picture must stay in its own square.</p> <p>5. Count how many pupils like bananas. Show the children how this corresponds with the number at the side.</p> <p>6. Repeat for the other fruits.</p> <p>7. When the graph is complete, have a look at it together and decide which are the most and least popular fruits and how you can tell.</p>	<p>Different pictures for children to add to a graph</p> <p>Bring into other aspects of school routine – favourite stories...</p>