

National Curriculum

Pupils:

- use logical reasoning to predict the behaviour of simple programs ♣ use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- 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.

Vocabulary

Database, graph, Internet, website, e-safety, online, tools, icons, insert, save, print, keys, mouse, keyboard, navigate, load, screen, enter, undo, text, type, graphics, navigate, create, technology,

Snapshot overview


Recap e-safety. Recap year 1 using Purple mash 2Graph -children to collect data on their favourite country and input data into "Graph to make a graph, label axis and title. Discuss how to interpret the information the different graphs that represent this data show us. Discuss the effectiveness and benefits of using Computers to represent and input data.


Introduce the term database, look at BBC bitesize to explore what these are. Load 2Investigate in Purple mash. Explore the Aliens database, teacher modelling and explaining how to navigate and use the graph icons to look at a variety of information on the aliens. Children to then use this to answer a set of questions about aliens.

Continue to explore and use databases on purple mash 2Investigate. This time focusing on the icon for sort, group and arrange. Children to use this to interpret digital data to answer a set of questions. Extend to children looking deeper into the individual database profiles for each alien - what information can we find out.

Children to apply what they have learnt using the data base for aliens and select the 'minibeasts' category to access a different database. Children to independently explore and find information out about minibeasts based on the type of questions they were answering in previous lessons. Children to record exciting information they have found on white boards.

	Learning Objectives	Task design to meet the learning objective (including key questions)	Task including scaffold and challenge	What and how will the learning be assessed?
1	<p>I can insert data</p> <p>I can enter information to make a graph</p> <p>I can choose which graph best represents my data.</p>	<p>Key question warm up: should you share other people's information on the internet ? 5 min discussion</p> <p>Children to collect data for 'What is my favourite country?' using a tally chart.</p> <ul style="list-style-type: none"> Discuss how we can present this information in a different way. <p>Can you remember year 1 how to make a graph? Can you tell me what the different tools do? How do you add labels and titles? Model making graph on 2graph</p> <ul style="list-style-type: none"> Demonstrate loading data handling software (Purple Mash 2Graph dependent on ability) <ul style="list-style-type: none"> Children to follow the simple procedure of entering data to form a graph, add title and label y and x axis. <p>What do the x and y axis show? Explain how you know.</p> <ul style="list-style-type: none"> Label, save and print graph/pie chart <p>How do you save your work? How do you print your work?</p> <ul style="list-style-type: none"> Look at the different formats used by children in class. Discuss which format presents the data most clearly and why. <p>Which graph presents the data most effectively? Why?</p> <p>Plenary: share graphs</p>	<p>Support - Instruction card for order of commands Adult/peer support</p> <p>Mixed ability groups</p> <p>Challenge: Investigate the different ways data can be shown e.g. vertical, horizontal and pie chart. Evaluate the different graphs and justify their preferred choice</p>	<p>Can the children: -input data -select graph and give reason -label axis -give graph a title</p> <p>Can children interpret their graph?</p>

2	<p>I can explore and discuss a simple prepared database</p>	<p>Key question - e safety class discussion 5 mins - what do we already know about esafety?</p> <p>Discuss what a data base is - A database is a computerised system that makes it easy to search, select and store information</p> <p>https://www.bbc.co.uk/bitesize/topics/zf2f9j6/articles/z8yk87h</p> <p>discuss where we find databases and what they are used for in the real world</p> <p>Model: Load 2investigate. Choose 'Aliens'</p>  <p>Then click on the table icon</p> <p>Discuss the data base - what information does it have?</p> <p>Discuss that because we have all this information in an organised database we can present the data in different ways to find information we need quicker.</p> <p>Click on the pie chart icon - what do we think this will show us? - click the down arrow next to the</p>	<p>Support - chn work in mixed ability groups</p> <p>Challenge: What else can you tell me about the aliens?</p>	<p>Can children find their way around the database.</p>

		<p>'name' label to choose other categories e.g earth habitat, special powers. Look at various graphs to see the information. Have a variety of questions prepared to answer, e.g. how many Aliens live in a sewer? How many aliens eat mice...</p> <p>Plenary: Discuss what we have found out</p>		
3	<p>I can explore and discuss a simple prepared database</p>	<p>Continue in 2investigate. Load the Aliens database. Model how to use the  sort group arrange icon. Go into 'group' , use the drop down arrow and select a category that interests you, e.g Earth habitat, super powers. Answer questions about what you found - e.g tell me which aliens live in the toilet, How many aliens have lazer eyes.</p> <p>Model clicking on the alien mini icon to get up the fact sheet for more detailed info. Answer questions.</p> <p>End: explore the databases - what interesting info can you find. What type of questions can you find the answer to using the database? Open or closed questions? Model trying to answer an open/ closed question.</p> <p>Challenge - Create questions for another group to investigate, using a database of their choice in 2Investigate.</p>	<p>Adult/peer support for less able Ext: Create own question to find answer to.</p>	<p>Can children use the icons accurately to find the information they need? Can children interpret and record their results?</p>

4	<p>I can search a simple prepared database</p> <p>I can answer yes/no questions to get the information I need.</p>	<p>Key question: What is the most important thing about esafety - why do you think that is the most important?</p> <p>Recap previous learning - what is 2investigate, what are databases and what do we use them for?</p> <p>Model choosing a database category - minibeasts. Can we apply what we did with aliens to find out information about minibeasts? Model using the same icons as we did for aliens to sort the minibeasts e.g. the group icon and the piechart icon - discuss what it shows us and what we can find out.</p> <p>Chn to work in mixed ability groups work in the minibeast category and record on whiteboards what we have found out about minibeasts .</p> <ul style="list-style-type: none"> - what does that icon do? What does this graph show you? Can the database show you the graph in a different way> <p>Plenary : share findings.</p>	<p>Support - mixed ability groups and adults to lap and feedback as required</p> <p>Challenge: What else can you find out about minibeasts?</p>	
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Impact statements-

- To be able to explain what a database is
- To be able to navigate a simple database to retrieve simple information
- To be able to interpret some data given in different forms
- To be able to answer questions about a simple database