



Mendell Primary School

Aspire Challenge Achieve

Medium Term Plan Computing



Year Group: 2	Term: Sum #2 2022	Teacher: Sarah Bride		Subject lead: Justin Cowley	Overview: Systems and Networks: What IT is. IT in school and beyond. How IT improves our world. Importance of using IT responsibly	Key End Points: By the end of this unit children will be able to: -			
Links to other learning:	Prior Learning:	Future Learning:	High Quality Text:	Risk Assessment:	Misconceptions: Learners may refer to the USB device as a 'memory stick'. 'Memory Stick' is a trademark, whereas 'USB flash drive' is a generic term.	Teacher CPD:			
<u>Learning Intention</u>	<u>Lesson Outline</u> (Key Questions in colour)					<u>Resources</u>	<u>Vocabulary</u>	<u>Lowest 20% Adaptations</u>	
1 - I can explain what IT is	<p>Computing is the use of devices to create, store and manipulate data In this lesson we are going to learn what IT (information technology) is.</p> <p>Display the first slide and ask the children what computers they have used or seen in school, such as tablets, laptops, and desktop computers.</p> <p>Share slide 2 and ask them to identify any ways that the devices are similar. Responses may include:</p> <ul style="list-style-type: none"> ● They all have a screen ● They have buttons ● They can be used for a number of different purposes <p>Show slide 3 and ask the class to identify how the tablets, laptops, and desktop computers are different. Responses might include:</p> <ul style="list-style-type: none"> ● Device X has a keyboard ● Device X is portable ● Device X needs to be plugged in to a power source <p>Share slide 4 and remind children that computers have different parts, which we control to use the computer in different ways. For example, buttons, keys, etc. Computers also have different ways of letting us know what is happening. For example, screens, lights, and sound.</p> <p>Ask the class to think, pair, share how computers can be used/ what can they be used for? Responses may include: to write, to type, to paint, to play games, etc.</p> <p>Display slide 5 and explain to the class that they will create a mind map to show the ways that computers are used at school. Provide each child with the Activity sheet – I can use a computer to... (resources folder) and give them time to write or draw some uses of computers.</p> <p>Show slides 6-8. For each slide, ask the class to provide a name to describe all of the objects.</p> <ul style="list-style-type: none"> ● Slide 6 – plants 					Ipads Examples of cameras Lesson Powerpoint	Information technology Computer		

		<ul style="list-style-type: none"> ● Slide 7 – animals ● Slide 8 – computers <p>Share slide 9. Ask the group to think, pair, share whether they can name all of the different objects. Ask the children whether they think all of the objects are examples of computers.</p> <p>Display slide 10 and explain that they are not all computers. Click to animate and explain that they are all examples of information technology. Explain to the children that information technology is anything that is a computer or works with a computer.</p> <p>Note: Learners may refer to the USB device as a ‘memory stick’. ‘Memory Stick’ is a trademark, whereas ‘USB flash drive’ is a generic term.</p> <p>Share slide 11 and ask the children to identify the objects that are not information technology. Click to animate the answers.</p> <p>Display slide 12 and ask the children to identify the object that is information technology. Click to animate the answer and emphasise how we can determine whether a device can be classified as information technology.</p> <p>Display slide 13 and provide the children with A3 Activity sheet – IT or not IT? Explain to the class how the sheet should be filled out.</p> <p>Share slide 14 with the class and ask them to think, pair, share the missing parts of the sentence. Click to animate the missing parts of the sentence and ask the learners to give their partner two examples of information technology. Click to animate three examples of information technology to support the learners if necessary. Ask the children to copy the sentence into their books and then write / draw two things that they think are examples of information technology.</p>			
2	<p>- I can how IT is used in my school.</p>	<p>Computing is the use of devices to create, store and manipulate data</p> <p>In this lesson we are going to identify examples of IT, sort IT in school by what it’s used for and identify that some IT can be used in more than one way.</p> <p>Recap previous learning: Display the first slide and ask the class to think, pair, share what the term ‘information technology’ means or what it relates to. Click to share the definition and remind them that IT is a computer or something that works with a computer.</p> <p>Show the learners the images on slides 2–5. For each slide, ask them to put their thumbs up if the picture is of something that is IT, or thumbs down if it is not.</p> <p>Share slide 6 with the class and explain that they will be identifying IT in their school. Explain that they will have 5 minutes to have a look, think, and write about what IT they have in school or within the classroom.</p> <p>Note: To support this activity, ensure that there are ample examples of IT in the immediate area accessible to the children.</p> <p>Display slide 7 and ask the class to pair, share the examples of IT they came up with. Using a flipchart or interactive board, write a list of the IT examples. Ask the children to explain how they use the devices on the list and how they help us.</p> <p>Share slide 8. Explain to the class that they will be completing a sorting activity and they should sort the devices into groups, based on what the device is used for. Ask the learners to think, pair, share to work out what the different devices are. As a class, discuss what each device is and what it does.</p> <p>Display slide 9 and model to the learners how to resize the images by clicking on the image, then clicking and dragging one of the squares at the side or corner of the image. Open the resource ‘IT in school’ (resource folder) and complete the task as a group.</p> <p>Note: remind the class that some devices might fit into more than one group.</p> <p>Display slide 10 and ask the children to choose, with a partner, one device from the previous activity. Explain that they should think about what life would be like for them without that device. They should consider the following questions:</p>	Lesson Powerpoint Class set of laptops	Information Technology	

		<ol style="list-style-type: none"> 1. What would life be like without the device? 2. Would you miss it? 3. What would you do / use instead? <p>Share slide 11 with the class and ask them to give examples of IT that is used for communicating, playing on (entertainment), and to help us. Encourage them to think about the devices that they sorted during the activity, as well as other devices.</p> <p>In their books children are to write the sentence stem and then write an example of each.</p> <p>Ask the children whether they think that any of the devices discussed might be found somewhere other than at school, eg at home, shops, libraries, launderettes, cinemas, etc.</p>			
3	- I can explain benefits of using IT	<p>Computing is the use of devices to create, store and manipulate data</p> <p>In this lesson we are going to investigate the benefits of using IT in the wider world, focussing on IT being used in a shop and how devices work together.</p> <p>Share the first slide with the class and ask them to think, pair, share whether any of the devices on the slide might be found in a supermarket (or shops more broadly). Ask them to share their ideas with the class.</p> <p>Display slide 2 and ask the children to think, pair, share about the images on the slide and how those things (barcode, barcode scanner, and till) might be used together. Review their discussions and highlight that barcodes are scanned at the till, then a beep sounds, and the price appears on a display.</p> <p>Show slide 3 and explain that barcodes are found on lots of products (food, toys, books, etc). Computers can read them very quickly. Each barcode represents a number — sometimes this number is shown under the barcode. The number corresponds to only one particular product. For example, the book <i>The Very Hungry Caterpillar</i> has its own unique ISBN (International Standard Book Number). Show an example. Be clear that identical products have the same barcode.</p> <p>Display slide 4 and split the class into groups of three. Provide each group with the Resource – Barcodes (found in resource folder)</p> <p>Share slide 5 and explain that barcodes are scanned using a scanner connected to a till. The number contained in the barcode is then used to look up the item. Once the item has been matched, its price will be looked up. This information comes from another computer, to which all of the tills are connected. The price is shown on a screen and added to a list of all of the things that the customer is buying.</p> <p>Share slide 6. Explain that one child will be playing the role of the customer. The customer will:</p> <ul style="list-style-type: none"> ● Select 2–4 products to buy. They will take these products to the scanner and item finder. <p>Share slide 7. Explain that one child will be playing the role of the scanner and item finder. The scanner and item finder will:</p> <ul style="list-style-type: none"> ● Look at the code and match the code to the correct product on Resource – Product list. They will then tell the price finder and adder what the product is. <p>Share slide 8. Explain that one child will be playing the role of the price finder and adder. The price finder and adder will:</p> <ul style="list-style-type: none"> ● Look up the cost of the product on Resource – Price list. They will write the price of the product on a piece of paper to create a ‘till receipt’. <p>Explain to the class that this process will take place for each product and the final total needs to be added at the bottom of the ‘receipt’. Explain that roles 2 and 3 are connected roles, but done separately. Each child should focus on their specific task. Repeat this activity several times and allow each child to try each role.</p> <p>Note: This is a computing activity and as such it is important that the learners focus on the process of how the IT works, rather than the maths involved. The children can use any of the four price lists provided. Explain that even if a shop changes the price of a product, the bar code still remains the same.</p>	Barcode resource Product list resource Price list resource	Information technology Computer Barcode Scanner / scan	

		<p>Display slide 9 and explain that they will think about these questions with their groups. Give the groups some time to discuss their thoughts before sharing with the class.</p> <ul style="list-style-type: none"> • Were you able to complete the jobs quickly? • Were you able to work well with the other parts of the till? • Do you think a real till would be quicker than you were? • How does having barcodes help shops and shoppers? <p>Share slide 10 and ask them to think, pair, share what are the benefits of using IT? Give the group time to discuss with their partners and then write their answers in their books.</p> <ul style="list-style-type: none"> • Ont 			
4	- I know	<p>Computing is the use of devices to create, store and manipulate data In this lesson we are going to think about the choices that are made when using IT and the responsibility when making those choices.</p> <p>Share the first slide and explain that in lessons in school we can't only do their favourite thing. It's important that they do a variety of different activities to keep their brains working and provide lots of different learning experiences.</p> <p>Show slide 2 and ask the class to think, pair, share what their favourite IT activity is. This could be when using IT at home or at school. It could be playing games, watching or creating videos, creating pictures, etc. Make a list of their activities on a flipchart or large piece of paper.</p> <p>Display slide 3 and introduce the Digital 5 a Day. Explain that Digital 5 a Day is about having a 'balanced digital diet'. Ask the class to think, pair, share where the listed examples fit into the Digital 5 a Day idea.</p> <p>Share slides 6–8. On each slide, stop and allow the children to offer suggestions for activities that would fit with each aspect. These can be the activities on the list created in the Introduction or alternative activities that the learners have thought about. Share the below examples if necessary:</p> <ul style="list-style-type: none"> • Connect: messaging someone, talking on a video call, talking face-to-face with someone • Be active: time away from using technology, physical play, running, skipping, etc. • Get creative: using a computer or tablet to paint a picture, write a story, etc. • Give to others: doing things for other people, doing something kind, etc. • Be mindful: taking a break, making space, being away from technology, colouring, drawing, etc. <p>Show slide 9 and explain to the class that they will be trying out each of the different aspects of the Digital 5 a Day. They will spend 4 minutes doing each activity. They should bear in mind that they may not complete an activity, and that this is about trying different activities. Allow some transition time between activities.</p> <p>Station 1: Connect Take a photo of another child in your group. Photos should be something that could be shared, so the person being photographed needs to be happy with the photo. Children should also ensure that they don't accidentally take a photo with someone else in the background.</p> <p>Station 2: Be active This station should be a simple physical activity that can be done in the classroom.</p> <p>Station 3: Get creative This station should have six computers or tablets set up with a painting application such as paint. Given the time constraints, children should have access to a device each. The painting could be related to a class topic, or the children could have free choice.</p> <p>Station 4: Give to others This station requires a device that can record sound, eg a tablet, laptop, or recording microphone. An easy way to do this is to record a 'video' but with the camera covered so that only the child's voice is heard. Each child should record a nice message about an adult in the school.</p>	Set of ipads 5 laptops	Information technology Digital	

5		<p>Station 5: Be mindful</p> <p>Being mindful is about the amount of time that a child spends online — and encouraging them to be mindful about how this makes them feel. This activity could be completed using sticky notes. Children could write an example of how they can manage the amount of time they are spending on IT. For example, “Have a break every hour when using IT”.</p> <p>After the class have tried every activity, bring them back together to discuss which activity they liked most, and suggest that they should make sure that they’re always doing a mixture of activities in their free time.</p> <p>Share slide 10 and ask them to think, pair, share how IT helps us. Ask the Class to share some of their responses with the class.</p> <p>Click to animate the next question, “What do you like or dislike about using IT?”</p>			
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