



TSS Primary Computing MTP 2022-2023 Year 2 Block 4 – Let's Investigate

Week	Key Targets and Learning Objectives	Key Activities	Key Vocabulary
1	<ul style="list-style-type: none"> ➤ 2CS.05 Understand that people use different types of computer device depending on a range of factors, including their location or their purpose. 	<ul style="list-style-type: none"> ➤ <i>What can you remember learning about data?</i> ➤ <i>What questions have we asked before and then used a computer to remember and present the answers?</i> ➤ Explain the use of a digital device to collect data. ➤ Share a line or block graph showing the classroom temperature throughout the day. Discuss what it shows. ➤ Children to make statements from the data e.g. the highest/lowest temperature. ➤ Repeat for sound levels ➤ Differentiation -working individually or in pairs 	<ul style="list-style-type: none"> ➤ input device / output device ➤ hardware / software ➤ graph ➤ data
2	<ul style="list-style-type: none"> ➤ 2MD.01 Know the advantages of storing data and information on computers. ➤ 2MD.02 Know how to use computing devices to present categorical data. ➤ 2MD.04 Identify types of statistical data that can be manually recorded using computing devices. ➤ 2CS.04 Identify tasks that computers can complete more effectively than humans. ➤ 2CS.02 Identify some features that make digital devices easy to use, including their physical parts and their functions. 	<ul style="list-style-type: none"> ➤ Review learning from last lesson. ➤ What are input and output devices? ➤ On a mobile device, what inputs are there? Touch screens (input and output elements) and microphones. ➤ What information does a microphone collect? Sound ➤ Allow the children to use the Too Noisy app (use iPads) to explore this idea - Too Noisy Online (tnfree-f2.s3.amazonaws.com) ➤ Discuss that this app does not give a precise reading of sound. ➤ Introduce the data logger and allow the children to explore the sound meter. Discuss the difference between this and the app in terms of consistent and reliable data. ➤ Draw and label the main parts of the data logger – display, power switch, sensor, temperature probe, microphone 	<ul style="list-style-type: none"> ➤ sensor ➤ input device / output device ➤ hardware / software ➤ Bluetooth ➤ light sensor ➤ temperature probe ➤ microphone ➤ decibel meter ➤ display ➤ power switch ➤ data logger
3	<ul style="list-style-type: none"> ➤ 2CS.04 Identify tasks that computers can complete more effectively than humans. ➤ 2CS.01 Use the correct terminology to explain the functions of basic hardware and software. ➤ 2MD.03 Investigate different ways of using computing devices to collect categorical data for a particular purpose. ➤ 2DC.02 Know that two devices working together can achieve things that neither device can achieve on its own. 	<ul style="list-style-type: none"> ➤ Review learning from last lesson ➤ How can computers help you to collect data? ➤ Which area is the quietest in school? How can we find out? ➤ Discuss how this might be done. Cover ideas such as using their own ears and whether or not this is a reliable way. ➤ Model how to use the data logger and how to collect that data on a table. ➤ Use J2E https://www.j2e.com/jit5#chart with a bar chart to display and print their findings. 	<ul style="list-style-type: none"> ➤ sensor ➤ input device / output device ➤ hardware / software ➤ data logger ➤ bar chart ➤ data



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		<ul style="list-style-type: none"> ➤ Discuss the results ➤ Self-assessment 	
4	<ul style="list-style-type: none"> ➤ 2MD.05 Discuss the different types of data that a question may generate, limited to statistical and non-statistical. ➤ 2MD.06 Understand how data may help to solve problems. ➤ 2MD.03 Investigate different ways of using computing devices to collect categorical data for a particular purpose. 	<ul style="list-style-type: none"> ➤ Review the learning from last lesson. ➤ Pose a problem that the data logger could help us solve. ➤ Model how to design the data collection table, collect the data and then record results and explain what has been found out. ➤ Children have a go in pairs with another problem. ➤ If time allows a third could be introduced. ➤ Self-assessment 	<ul style="list-style-type: none"> ➤ sensor ➤ input device / output device ➤ hardware / software ➤ table ➤ results
5	<ul style="list-style-type: none"> ➤ 2MD.06 Understand how data may help to solve problems. ➤ 2CS.01 Use the correct terminology to explain the functions of basic hardware and software. ➤ 2CS.03 Know the difference between input and output devices. ➤ 2CS.04 Identify tasks that computers can complete more effectively than humans. ➤ 2CS.05 Understand that people use different types of computer device depending on a range of factors, including their location or their purpose. 	<ul style="list-style-type: none"> ➤ Review the learning from last lesson. ➤ Typing Club practice. ➤ Review the fact that sensors were used on the data loggers. ➤ Explore where else sensors can be found – automatic door, COVID temperature scanners, blood pressure monitor, SIRI/Alexa etc. ➤ Discuss how they work. ➤ Children can produce a poster about one particular sensor or sensors in general. ➤ Self-assessment 	<ul style="list-style-type: none"> ➤ sensor ➤ input device / output device ➤ hardware / software
6	<ul style="list-style-type: none"> ➤ 2CS.04 Identify tasks that computers can complete more effectively than humans. ➤ 2CS.01 Use the correct terminology to explain the functions of basic hardware and software. ➤ 2CS.03 Know the difference between input and output devices. 	<ul style="list-style-type: none"> ➤ Review the learning from last lesson. ➤ Typing club practice ➤ Review the idea of hardware and software. ➤ https://youtu.be/xZKMmk8JSUK ➤ Explain that they are going to help explain what different pieces of hardware and different software does. ➤ Get the children to explain the following: mouse, keyboard, screen, headphones, code.org, Scratch Junior, Word, YouTube ➤ Children need to use key words like input, output, instructions, function. 	<ul style="list-style-type: none"> ➤ input device / output device ➤ hardware / software ➤ instructions ➤ function
7	<ul style="list-style-type: none"> ➤ 2MD.03 Investigate different ways of using computing devices to collect categorical data for a particular purpose. 	<ul style="list-style-type: none"> ➤ Review the learning from the last lesson. ➤ Introduce the idea of an event and link it to the idea of an input. 	<ul style="list-style-type: none"> ➤ input / output ➤ event ➤ block coding



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<ul style="list-style-type: none">➤ 2MD.05 Discuss the different types of data that a question may generate, limited to statistical and non-statistical.➤ 2MD.06 Understand how data may help to solve problems.➤ 2CT.02 Identify and correct a single error in algorithms that represent everyday events or tasks.➤ 2CT.03 Know that an algorithm is a precise set of instructions.➤ 2CT.04 Identify the steps needed to undertake tasks, in order to develop simple algorithms.➤ 2CT.06 Know how to develop precise sets of instructions to complete simple tasks, such as drawing a picture of a particular object or building a brick tower	<ul style="list-style-type: none">➤ Demonstrate by assigning actions to a controller.➤ Watch https://studio.code.org/s/courseb-2022/lessons/12/levels/1?section_id=4197650➤ Children to complete Lesson 12 on Code.org	<ul style="list-style-type: none">➤ Blockly➤ algorithm
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