






## TSS Primary Computing MTP 2022-2023



### Year 2 Block 5 – Dance Like a Dinosaur

Week	Key Targets and Learning Objectives	Key Activities	Key Vocabulary
1	<ul style="list-style-type: none"> <li>➤ 2CS.06 Compare the representation of robots in fiction with real robots that have a real-world purpose.</li> </ul>	<ul style="list-style-type: none"> <li>➤ What are computers better at doing than humans?</li> <li>➤ Review previous learning about robots including those they invented in Block 1.</li> <li>➤ Look at the PowerPoint on Real World Robots and discuss the different types of robots mentioned.</li> <li>➤ Using Safari and PicCollage, students to gather images of robots and add text to explain what their real-world applications are.</li> <li>➤ Can robots work on their own?</li> <li>➤ Discuss the need for software to allow the robot (hardware) to work. Link to algorithms.</li> <li>➤ If time allows play robot game.</li> <li>➤ Self -assess and review learning.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Robot</li> <li>➤ android</li> <li>➤ nanobot</li> <li>➤ cyborg</li> <li>➤ microbot</li> <li>➤ hardware/software</li> <li>➤ algorithm</li> </ul>
2	<ul style="list-style-type: none"> <li>➤ 2CT.05 Predict the outputs of algorithms.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Review learning from previous lesson.</li> <li>➤ Look at a video of a simple dance routine <a href="https://youtu.be/YfKL0T6w7v0">https://youtu.be/YfKL0T6w7v0</a></li> <li>➤ How did the children know what to do?</li> <li>➤ Discuss the use of an algorithm. Write a few of the instructions and practice together.</li> <li>➤ <i>Do you think we could make a character dance on a computer?</i></li> <li>➤ Discuss the use of an algorithm and a coding language.</li> <li>➤ Remind the children of some of the work they have done using Scratch Jnr.</li> </ul> <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> <li>➤ What would happen? How could we make the sprite move further?</li> </ul> <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> <li>➤ What would happen? Children to predict and test on an iPad.</li> <li>➤ Give children code to predict and test using the following blocks: start stop forward</li> </ul>	<ul style="list-style-type: none"> <li>➤ Algorithm</li> <li>➤ code</li> <li>➤ sprite</li> <li>➤ sequence</li> </ul>

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3	<p>backward turn left turn right</p> <p>➤ Review learning and self-assess</p>	
3	<p>➤ 2P.01 Understand that programs instruct computers how to run algorithms.</p> <p>➤ What does this do? ➤ Review the idea of a prediction. ➤ Children can then test out their prediction on the iPads. ➤ Display this:</p>  <p style="text-align: center;">and explain that this is part of a dance routine but that it needs to be longer. What could be done? (Repeated)</p>  <p>➤ The code is quite long, how can it be made shorter? Discuss the use of a repeat block. What would this look like?</p>  <p>➤ Children to make a repeat for their sprite creating a dance routine. ➤ Extension – children can add an extra sprite to dance with the first. ➤ Share some of the algorithms with the class. Do the sprites look like they are dancing? ➤ Review and self-assess.</p>	<p>➤ Algorithm ➤ sequence ➤ code ➤ program ➤ trigger block ➤ end block ➤ repeat block ➤ control block ➤ motion block</p>
4	<p>➤ 2P.04 Know how to plan the instructions for objects within programs.</p> <p>➤ Which one is correct? ‘When the character is tapped, repeat twice: jump up 5 spaces turn around clockwise once and come back down 5 spaces.’</p>	<p>➤ Algorithm ➤ sequence ➤ code ➤ program ➤ trigger block ➤ end block</p>

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		 <ul style="list-style-type: none"> <li>➤ Discuss why – trigger blocks. Discuss that the flag block would be a bug in the code.</li> <li>➤ Review learning from previous weeks.</li> <li>➤ Explain that they are going to create a dance sequence for a sprite that is not the cat.</li> <li>➤ Run through selecting a background/stage for the dance and how to add and delete a sprite.</li> <li>➤ Get children to plan their sequence on paper and explain what happens before coding using Scratch Jnr.</li> <li>➤ Partner share their algorithms and peer assess, checking that the dance steps are represented in the plan.</li> <li>➤ Extension – children can be shown how to create their own sprite.</li> </ul>	<ul style="list-style-type: none"> <li>➤ repeat block</li> <li>➤ control block</li> <li>➤ motion block</li> </ul>
5	<ul style="list-style-type: none"> <li>➤ 2P.05 Understand the benefits of working with others when debugging programs.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Review learning from previous weeks.</li> <li>➤ Compare a written algorithm with the program code blocks to find the bug.</li> </ul> <p>For example:          ‘When the dinosaur is tapped,          say “hello”.          Repeat twice:            jump up 5 spaces            turn around clockwise once and            come back down 5 spaces.’</p>  <p>There are 2 bugs: the character is going to say ‘hi’ not ‘hello’, and it will move down 8 spaces, not 5 as it says in the algorithm.</p> <ul style="list-style-type: none"> <li>➤ Draw attention to the purple block that has been used in the above sequence and discuss where learners think it might be found and what it might be called. Click on</li> </ul>	<ul style="list-style-type: none"> <li>➤ Algorithm</li> <li>➤ sequence</li> <li>➤ code</li> <li>➤ program</li> <li>➤ trigger block</li> <li>➤ end block</li> <li>➤ repeat block</li> <li>➤ control block</li> <li>➤ motion block</li> <li>➤ bug</li> <li>➤ debug</li> </ul>



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		<p>the block within the purple palette to demonstrate that it is called the 'say' block. For example:</p>  <p>➤ Explain that the purple blocks are called 'looks' blocks. Display the other 'looks' blocks and ask learners to speculate what they might do, before you demonstrate each one in turn.</p> <p>➤ Discuss why the colour coding is beneficial.</p> <p>➤ Present children with snippets of code and explanations. Get them to identify the bug and debug the code. When the activity is finished, get them to partner check their debugging before using Scratch Jnr. as a final check.</p> <p>➤ Review and self-assess.</p>	
6	<p>➤ 2P.06 Identify the benefits of regularly testing programs throughout their development.</p>	<p>➤ Review learning from previous weeks.</p> <p>➤ Get children to use their planning to program their dance sequence on Scratch Jnr.</p> <p>➤ Remind them to regularly check their code for bugs.</p> <p>➤ Self-evaluate their work.</p> <p>➤ Discuss the idea of improving their work.</p> <p>➤ Use additional challenges to support learners to develop their programs. For example:</p> <p style="padding-left: 40px;"><i>Can you add a background to the stage?</i></p> <p style="padding-left: 40px;"><i>Can you draw your own character?</i></p> <p style="padding-left: 40px;"><i>Can you make the character say 'Let's dance' at the beginning of your program?</i></p> <p style="padding-left: 40px;"><i>Can you add some sound to your project?</i></p> <p>➤ Children can then share their challenges and peer assess.</p>	<ul style="list-style-type: none"> <li>➤ Algorithm</li> <li>➤ sequence</li> <li>➤ code</li> <li>➤ program</li> <li>➤ trigger block</li> <li>➤ end block</li> <li>➤ repeat block</li> <li>➤ control block</li> <li>➤ motion block</li> <li>➤ bug</li> <li>➤ debug</li> </ul>