



<b>Year 1: Computational Thinking with Cubetto</b> <b>Unit 1: Lesson 2: Cubetto's Papyrus</b>	<ul style="list-style-type: none"> <li>• 6 Cubettos and 6 boards</li> <li>• 6 Ancient Egypt maps</li> <li>• 6 sets of blocks (4 of each colour)</li> </ul>	<b>Cross-curricula area:</b> Art / Design
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NC Objectives	Outcomes	Computational thinking		Resources provided	Resources needed
		Concept	Approach		
To understand that programmes execute by precise instructions	<ul style="list-style-type: none"> <li>• I can put instructions in the right order</li> <li>• I can follow instructions to make paper</li> </ul>	Logic	Tinkering		<ul style="list-style-type: none"> <li>• Five-step instructions to make paper (drawings and pictures)</li> <li>• Glue, water, brown paper bags cut into strips, kitchen towel</li> <li>• <i>[If possible, papyrus paper]</i></li> </ul>
<b>Preparation needed</b> <ul style="list-style-type: none"> <li>• Check batteries.</li> <li>• Print copies of the paper-making instructions and cut into strips for children to order.</li> <li>• Cover tables in newspaper.</li> </ul>	<b>Teacher-led introduction</b> <ol style="list-style-type: none"> <li>1. [If possible, hand out papyrus paper for children to feel and discuss].</li> <li>2. Show short video explaining how to make <b>papyrus</b> paper: <a href="https://www.youtube.com/watch?v=mBnEMUVINvl&amp;t=99s">https://www.youtube.com/watch?v=mBnEMUVINvl&amp;t=99s</a> and ask: <u>What is papyrus? A plant. What did Ancient Egyptians use papyrus for? What is our paper that we use today made from?</u></li> <li>3. Introduce the word <b>algorithm</b> as a set of instructions in the right order. Ask: <u>When do we follow instructions? Can you think of examples of instructions that have to be in the right order? Recipes, how to lace shoes, how to swim.</u></li> <li>4. Show the five steps for making paper on the board, mixed up e.g. Lay down kitchen towel; dip strips of brown paper into glue mix; lay strips across kitchen towel overlapping each other; dip and lay more strips going downwards; dry paper.</li> <li>5. Ask: <u>What is the first thing that we have to do to make paper like the Ancient Egyptians?</u></li> <li>6. Write five numbers descending on the board and ask for a volunteer to move the first step to number 1.</li> <li>7. Explain that the children will be making their own papyrus paper today by following instructions.</li> </ol>				
<b>Key vocabulary</b> Papyrus Algorithm	<b>Guided activity</b> <ol style="list-style-type: none"> <li>1. Read the instructions for making papyrus paper together.</li> <li>2. Ask: <u>What is special about the way that papyrus is made? Strips laid across and then down.</u></li> <li>3. Ask: <u>Why do we need to put down kitchen towel?</u></li> <li>4. Allow time for the children to follow the instructions at their own pace, supporting as necessary.</li> <li>5. While pupils are working, ask: <u>Why do you think they put the paper across one way and then downwards?</u></li> <li>6. When finished, pupils can write their name carefully on the kitchen towel and leave to dry (ideally hanging up).</li> <li>7. When it's dry, children can write a message about what they have learnt to take home.</li> </ol>				
<b>Challenge</b> Can you write or draw a set of instructions to get home from school?	<b>Independent activity</b> <ol style="list-style-type: none"> <li>1. Look at the set of five instructions for making papyrus paper.</li> <li>2. Discuss with a partner which goes first and why.</li> <li>3. Put the instructions in the right order to make an algorithm.</li> <li>4. When you have finished, stick them on paper to use in the next activity.</li> </ol>				
<b>Creative play</b> Make up your own written language using symbols.	<b>Plenary and assessment</b> <ol style="list-style-type: none"> <li>1. Invite pupils to the front to show their papyrus paper and explain how it was made.</li> <li>2. Show the five steps in the wrong order and ask pupils to re-order the instructions.</li> <li>3. Ask: <u>What is an algorithm?</u></li> <li>4. Ask: <u>Why is it important for our instructions to be in the right order?</u></li> <li>5. Explain that they will be using algorithms to make Cubetto move, and it is very important that each step is in the right order or it won't reach its destination!</li> </ol>				