Year 1: Computational Thinking with Cubetto **Unit 1: Lesson 5: Cubetto's Cartouche**	• 6 Cubettos and 6 boards • 6 Ancient Egypt maps • 6 sets of blocks (4 of each colour)	**Cross-curricula area:** English

NC Objectives	**Outcomes**	**Computational thinking**		**Resources provided**	**Resources needed**
		Concept	**Approach**		
To understand that programmes execute by precise instructions	• I understand that an algorithm is a set of ordered instructions • I can use symbols to create words	Algorithms	Creating	• Cubetto cartouche and key	• Mixed up algorithm to move from the compass to the hieroglyphics (top right/F1) • Cartouche template (oval)

Preparation needed

- Check batteries.
- Put the hieroglyphics key on the board, mixed up, so that each symbol can be moved.
- Print and cut up copies of the mixed up algorithm and hieroglyphics for chn to re-order.
- Print copies of key.

Teacher-led introduction

1. Show the Cubetto cartouche on the board (just the vertical symbols in the yellow oval without the key).
2. Ask children to tell you what they can see and discuss which symbols are similar and different, for example the birds.
3. Explain that this is how the Ancient Egyptians wrote down their language. The language is written in **hieroglyphics**. Ask: What do you think it says?
4. Introduce the 'key' mixed up on the board and ask the children to work together to put the symbols in the right order.
5. Ask: Can anyone read what this says now? *Cubetto!* Explain that when hieroglyphics spell out a person's name downwards, this is called a **cartouche**.
6. Explain that Cubetto's blocks are like hieroglyphics because they are a language that computers understand.
7. Show the function (blue) block and ask: Has anyone tried using this block? What do you think it does?
8. Introduce the **function block** as a 'backpack' that keeps up to four other blocks inside it.
9. Model using the function block by placing it in the board, then putting two green blocks in the function line below. Before pressing Action, ask the children what they think will happen.

Key vocabulary

Hieroglyphics
Cartouche
Function block

Challenge

Can you move Cubetto around the map to draw the letter C?

Guided activity

1. Place Cubetto on the compass facing North.
2. Explain that the children will be writing an algorithm to get Cubetto to the hieroglyphics (F1).
3. Starting without the blue block, ask: Which blocks do you need? Allow time for the children to explore and discuss.
4. When pupils have written an algorithm, re-introduce the function block as a backpack that can carry several blocks inside it.
5. Ask: How many blocks have we used so far? How could you use the function block to use fewer blocks in total?
6. Allow time for the children to try out using the function block and to discover what works and what doesn't.
7. If children finish quickly, start Cubetto at the palm tree and ask them to use the function block to reach the hieroglyphics.

Independent activity

1. Look at the six symbols in hieroglyphics.
2. Look at the key.
3. Put the six hieroglyphics in order so that it spells out C-u-b-e-t-o.
4. Take the cartouche template and place the symbols in order going downwards.
5. Stick the hieroglyphics in order and cut out your cartouche to display.

Creative play

On brown/yellow paper stuck to the wall, write in hieroglyphics.

Plenary and assessment

1. Show two different algorithms that the children have created today, one with the function block and one without.
2. Ask: What is the same and different about these? How does the function block help us writing algorithms?
3. Ask children to show their cartouches and ask: Why is it important to put the symbols in the right order?