Year 1: Computational Thinking with Cubetto **Unit 1: Lesson 1: Cubetto's Properties**	• 6 Cubettos and 6 Boards • 6 City Maps • 6 Sets of Blocks (with 19 blocks in each)	**Cross-curricular area:** **Maths**

NC Objectives	**Outcomes**	**Computational Thinking**		**Resources Provided**	**Resources Needed**
		Concept	**Approach**		
To explore a digital device	• I can describe an object's properties • I can compare the weight of two objects		Tinkering	• Properties table • Digital copy of City Map squares for printing	• Feely bags • Objects to describe

Preparation Needed
- Check batteries.
- Feely bags with different wooden, metal and plastic objects inside.
- Make copies of properties table.

Teacher-led introduction (feely bag with Cubetto in at the beginning)
1. Ask for a volunteer to come to the front. Hold out the feely bag and ask the child to put their hand in and feel, closing their eyes.
2. Ask: What can you feel? **Describe** to us what it feels like. Write on the board the words the pupils use. Ask: Can you guess what it is?
3. If not, ask another child to try and guess, noting down the words they use to describe the object to the class.
4. Add to the children's words so there are at least five to describe Cubetto (e.g. ***wood***, ***smooth*** *sides,* ***sharp*** *corners, cube/square,* ***hard)***.
5. Ask: For each of these words on the board, can you think of the opposite? Give examples for children to feel if needed.
6. Ask: Can you point to something else in the class made of wood? Repeat for metal and plastic.
7. Hand out Cubettos and ask: Can you find something on Cubetto that is **metal** or **plastic**?
8. Now ask for a volunteer to hold two objects: Cubetto and a heavier object. Ask: Which is heavier? Repeat with a lighter object.
9. Explain that when we describe what an object is like, we are describing its **properties**.

Key Vocabulary
Describe
Properties
Smooth/rough/sharp
Hard/soft
Wood/plastic/metal
Heavier/lighter

Challenge
Can you make Cubetto turn around?

Guided activity
1. Explain that the group will be playing a guessing game, using their describing words.
2. **Model** working with a partner, deciding who is A and B.
3. Partner A chooses one of the City Map pictures but hides it from their partner (e.g. traffic lights).
4. Sitting opposite each other, Partner A describes the square to Partner B without using the name of the object (e.g. black rectangle, three coloured circles: red, orange and green)!
5. When Partner B guesses correctly, Partner A places their picture on the map. The pupils then swap roles.
6. Give time for pupils to work in pairs (both will have a turn!) to guess the different squares, using words to describe shapes and colours.

Independent activity
1. Work in pairs and take one Cubetto between two of you.
2. Go around the classroom and find an object that is heavier than Cubetto. Find two other objects.
3. Now find three objects that are lighter than Cubetto.
4. Use the table to draw or write down three objects you have found that are heavier, and three that are lighter.
5. Write words to describe the properties of these objects in the column next to them.

Creative Play
Make a bridge for Cubetto to cross.

Plenary and assessment
1. Ask the children to close their eyes. Choose one of the objects used today and describe it to the class, one word at a time.
2. Tell the children they can shout out the answer when they think they know what it is! Repeat.
3. Ask children to share their properties tables, explaining what they found that was lighter and heavier than Cubetto.
4. Collate a list of all the words used to describe the properties of different objects around the classroom.