

Computing

Scheme of Work

Unit 5.7 – Concept Maps







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Introduction

This unit of work uses 2Connect and is designed to help the children learn the basics of concept mapping both individually and in collaborative working groups. A <u>user guide to this tool</u> can be found in the <u>Guides and Resources</u> <u>area</u> of Purple Mash.

Using 2Connect, this unit will give children a basic understanding of how to generate, visualise and connect their ideas and thought processes.

To use 2Connect collaboratively, children will need to have individual logins. If you are currently using a single login per class or group and would like to set up individual logins yourself, then please see our guide to doing so at Create and Manage Users. Alternatively, please contact support at support@2simple.com or 0208 203 1781.

To force links within this document to open in a new tab, right-click on the link and then select 'Open link in new tab'.



Medium-term Plan

Lesson	Aims	Success Criteria
1	To understand the need for visual representation when generating and discussing complex ideas.	 Children can make connections between thoughts and ideas. Children can see the importance of recording concept maps visually.
2	To understand and use the correct vocabulary when creating a concept map. To create a concept map.	 Children understand what is meant by 'concept maps', 'stage', 'nodes' and 'connections'. Children can create a basic concept map.
<u>3</u>	To understand how a concept map can be used to retell stories and information.	 Children have used 2Connect Story Mode to create an informative text.
<u>4</u>	To create a collaborative concept map and present this to an audience.	 Children have used 2Connect collaboratively to create a concept map. Children have used Presentation Mode to present their concept maps to an audience.





<u>Aims</u>

- To understand the need for visual representation when generating and discussing complex ideas.
- To introduce the idea of concept mapping and the need for it to be represented visually.
- To understand the connections and links between ideas.

Success criteria

- Children can make connections between thoughts and ideas.
- Children can see the importance of recording concept maps visually.

Resources

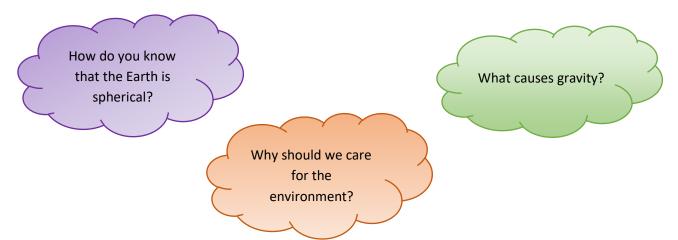
• Ball of wool.

Activities

- 1. Share the learning objectives and success criteria with the children.
- 2. Ask the children whether they know what a concept map is.
- 3. Children can make sensible guesses as to what is meant by a concept map. Some may use other terminology such as 'thought shower', 'mind map', etc. Encourage answers from the children.

Concept maps are a tool for organising and representing knowledge. They form a web of ideas which are all interconnected.

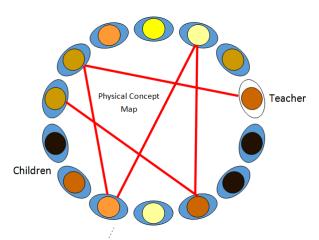
4. Introduce a 'concept' as an idea in the form of a question. Examples of this could be:







5. Gather the children in a circle and explain the activity. The activity is to create a physical concept map. Outline the rules for contributing to the physical concept map (turn-taking, etc.). Each time a child has an idea to include in the physical concept map, the ball of wool will be unwound and passed on, creating a web of ideas.



- 6. Introduce one of the questions, e.g., 'Why should we care for the environment?'
- 7. Guide the session, creating a physical concept map using the children in the circle and the ball of wool. Once the web has been created and all ideas have been shared, work backwards through the web, demonstrating the difficulty of recalling all the ideas that were shared.
- 8. How can we solve the problem of recalling our concept map?
- 9. With the children, develop a checklist of success criteria for a concept map.
- **10.** Introduce 2Connect to the children. This is the software they will use in the next session.



Lesson 2

<u>Aims</u>

- To understand and use the correct vocabulary when creating a concept map.
- To create a concept map.

Success criteria

- Children understand what is meant by 'concept maps', 'stage', 'nodes' and 'connections'.
- Children can create a basic concept map.

Resources

• 2Connect.

Activities

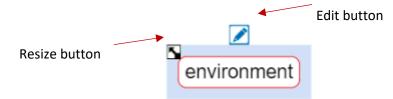
- 1. Review the learning from the previous session. Share the learning objectives and success criteria.
- 2. What were the problems with creating our concept map physically? What are the benefits of creating a concept map visually? Gather answers and then explain that we can use 2Connect to create our concept maps.
- 3. Show the children how to open 2Connect and create a new concept map.

(If you require assistance in using the program, click on the video help files at the top right of 2Question.)

4. Show the children how to create a title node for their concept map by clicking on the stage. Demonstrate how a second node can be added.

Nodes represent concepts or ideas.

5. Demonstrate how the properties of the node can be edited by clicking the Resize button or the Edit button.



6. When editing the properties of a node, click on the Edit button. This opens the node editor. Here, the colour, text, font type and font size can be edited. Pictures, sounds and notes can also be added to the node.









7. Show the children how the two nodes can be joined using a connection. This connection is created by clicking on the node border and dragging a line between the two nodes.

Connections represent a relationship or link between two nodes or ideas.

8. Demonstrate how the properties of the connection can be changed by clicking on the arrow.



- **9.** The children should go to their computers and open 2Connect. They should then create a concept map using 2Connect based on the theme discussed in the previous session.
- **10.** Bring the children together and look at some of their completed concept maps. How could we improve our concept maps? What are our next steps?



Lesson 3

<u>Aims</u>

• To understand how a concept map can be used to retell stories and information.

Success criteria

• Children have used 2Connect Story Mode to create an informative text.

Resources

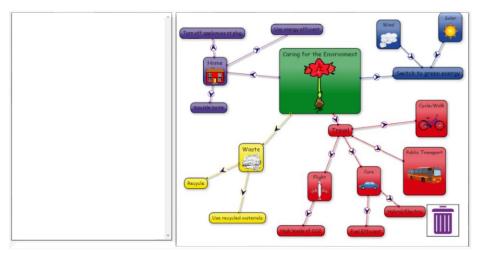
• 2Connect.

Activities

- 1. Review what was learned in the previous session. Share the learning objectives and success criteria.
- 2. Explain to the children that they are going to use the concept map that they created in the previous session to assist them with writing an informative text.

ABC

- 3. Demonstrate how to do this by clicking on the Story Mode icon.
- 4. This opens the Story Mode panel on the left of the screen.



- 5. Demonstrate how to type in the Story Mode panel.
- 6. Demonstrate how to click on a node. This will cause the text from the node to be inserted automatically into the text in the Story Mode panel.



	\bigtriangledown
Caring for the Environment	^

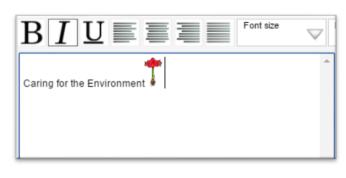






7. Demonstrate clicking on a node picture. This will cause the picture from the node to be inserted automatically into the text in the Story Mode panel.





8. Demonstrate the editing of the text properties using the Text toolbar.

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9. The children should go to their computers and open 2Connect. They should use their concept map from the previous session to create an informative text.



Lesson 4

Aims

• To create a collaborative concept map and present this to an audience.

Success criteria

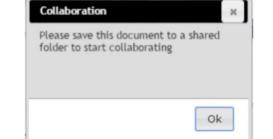
- Children have used 2Connect collaboratively to create a concept map. •
- Children have used the Presentation Mode to present their concept maps to an audience. •

Resources

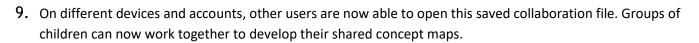
2Connect. •

Activities

- 1. Review the learning from the previous session. Share the learning objectives and success criteria.
- 2. Explain to the children that they are going to create a collaborative concept map and then use Presentation Mode to present this to the class.
- 3. Open a new 2Connect concept map.
- 4. Collaborative Mode allows multiple pupils to work on the same concept map on different devices at the same time.
- 5. To set up a collaborative concept map, click the Collaboration icon.
- 6. This will then prompt you to save the document to a shared folder.



- 7. Select a shared folder from the list. Name the file and press Save.
- 8. The Collaboration icon has now changed to look like this:



10. Now demonstrate Presentation Mode by opening a previous 2Connect concept map.



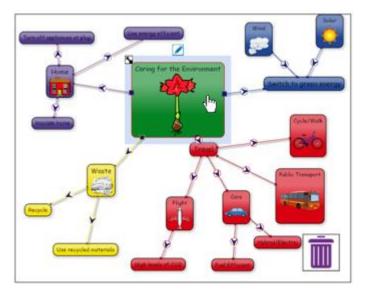








11. Select the node that you would like your presentation to start on. Selecting different nodes starts your presentation from a different place in your concept map.



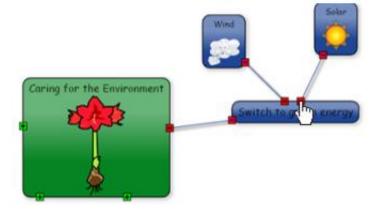
12. Click on the Presentation Mode icon. This starts the presentation and hides the additional nodes which connect to the starting node.



13. Clicking on the green plus symbols opens the connections to your additional nodes.



- 14. These nodes can then be hidden by clicking on the red minus symbols.
- 15. The children should go to their computers and open 2Connect. They should create a new concept map in



Collaboration Mode.

- **16.** Once the children have created their collaborative concept map, allow them to practise and rehearse their concept map presentation.
- 17. The children then present their concept maps to the class. Both you and the other children give feedback on the strengths and development points from each presentation.



Assessment Guidance

The unit overview for year 5 contains details of national curricula mapped to the Purple Mash Units. The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

	Assessment Guidance
Emerging	With support and in a small group, children can use 2Connect to design and create concept maps that collect and present a range of ideas, although at times these might not be linked (Lessons 1 and 2).
	With help, children can use the additional features of the software in 2Connect to present their concept maps as a visual whole class presentation (Lesson 4) and as simple written text (Lesson 3).
Expected	Children can use 2Connect to design and create concept maps that collect and present a range of linked ideas (Lessons 1 and 2). Children can use the additional features of the software in 2Connect to present their concept maps as a visual whole class presentation (Lesson 4) and as written text (Lesson 3).
	Most children will be able to work successfully with others to create an online collaborative concept map using 2connect (Lesson 4) which has been well thought out for layout and content, using features such as image and node layout choices appropriately. They can reflect on these choices and discuss the rationale for them.
	During presentations (Lesson 4), children can give constructive feedback sensitively and respond well to others' feedback.
Exceeding	Children demonstrating greater depth use the full functionality of 2Connect to create detailed concept maps which contain appropriate images and additional links between nodes (Lessons 1 and 2). Children can use the additional features of the software in 2Connect to present their concept maps as a visual whole class presentation (Lesson 4) and as written text (Lesson 3).

