

Here is one example of a Coding lesson we included in the supplementary resources in the workbook.

Subject: Mathematics/Code

Grade Level: Grade 1

Created by: B. Fiddler & M. Clarke

Lesson	
Curriculum Expectations	Cross Curricular Connections
	Language Arts - Oral and Visual and Writing
Big Idea(s) To use iPad App Number Frames to write code sequentially, concurrently and repeat events	
Learning Goal	Sample Success Criteria
We are learning to....	This is what I need to do to be successful
Write code using symbols Write code in sequence Repeat code symbols and add additional code symbols Repeat code in written form Create a code pattern that explains events or tells a story	Select a symbol(s) to write a code pattern I can repeat the code pattern I can add new or different symbols to create additional code
Assessment	
Observe students as they complete the activity and assess how well they: <ul style="list-style-type: none"> • use the Number Pieces app to select symbols to create a code message(s); • explain their thinking for the decisions; 	
Materials	
- iPads - paper and pencil	

THREE PART LESSON

	PLAN	QUESTIONS TO ASK
<p>Minds On/Before</p>	<p>Read: "Pattern Bug"</p> <p>youtube.com/watch?v=4g2fKY_mwYI</p> <p>Discuss/review with students what a pattern looks like. Illustrate a couple of examples using shapes or numbers or both.</p> <p>Discuss how the story repeats and gives examples of what the bug/insect does. Elicit some examples for students.</p>	<p>Ask students to listen to what each bug/insect are doing? How does each repeat? Elicit responses.</p>
<p>During/Activity</p>	<ol style="list-style-type: none"> 1 Project Number Frames App on screen. Ask students to open Number Frames App. 2. Direct students to tap the bottom left corner of app to symbols option. 3. Have the students select from the two a colour and one symbol (red frog), from the bottom green butterfly (as example). 4. Begin with the 5 frame first. Select a frog and two butterfly symbols and place in frame. Begin a story line (a frog went looking for something to eat - he saw 2 green lady bugs. Yummy! Add a frog symbol again and say the frog jumped up and got one of the ladybugs, but the other one got away). 	<p>Students should have some familiarity with this app for numeration activities. Students may already know the app option and it is very important students remain focused on the lesson so they can use the app to create a short story with the symbols.</p>

	<p>5. Ask students to explain how they understood the story.</p> <p>6. Explicit instruction led by teacher- review the symbols that students can use and elicit some potential ideas students could use to create a 5-frame story. Provide examples.</p> <p>7. If necessary, students could work in pairs to begin. Have students use the 5 frame and create a short story about the symbols.</p> <p>8. As you observe, you can project some examples students have created.</p> <p>9. If students are comfortable moving on, have them create a 10 frame and continue their story.</p> <p>10. Have student try the 10 frame to see if they can create a repeating pattern or extend what they have already completed.</p> <p>11. Project a couple of completed frame stories and ask class to determine what the story is about? Or ask the students to come up with a story based on the frame picture projected.</p>	<p>Students may require a few more short stories before beginning. It might even be appropriate to have the students as a class do one together.</p> <p>You may need to begin the frog story again using a 10 frame to support understanding.</p>
<p>After/ Consolidation</p>	<ul style="list-style-type: none"> • “How can symbols create a story or event?” • “What would you add to the story (what symbols) to make the story/event different or exciting?” 	

