Which of the following outcomes from the Digital Technologies strand of the new K-6 Science and Technology Syllabus does the planned lesson address? Please circle all those apply.

Stage 1

- uses materials, tools and equipment to develop solutions for a need or opportunity (ST1-2DP-T)
- describes, follows and represents algorithms to solve problems (ST1-3DP-T)
- identifies the components of digital systems and explores how data is represented (ST1-11DI-T)

Stage 2

- selects and uses materials, tools and equipment to develop solutions for a need or opportunity (ST2-2DP-T)
- defines problems, describes and follows algorithms to develop solutions (ST2-3DP-T)
- describes how digital systems represent and transmit data (ST2-11DI-T)

Stage 3

- plans and uses materials, tools and equipment to develop solutions for a need or opportunity (ST3-2DP-T)
- defines problems, and designs, modifies and follows algorithms to develop solutions (ST3-3DP-T)
- explains how digital systems represent data, connect together to form networks and transmit data (ST3-11DI-T)

NSW Syllabus Outcome(s): *Does the lesson involve concepts or outcomes from the Science and Technology syllabus that are not listed above or that are from another Key Learning Area (for example, English or the Creative Arts)? If so, what concepts and outcomes are these?*

Introduction: *How will you get the students motivated, curious and ready to learn?*
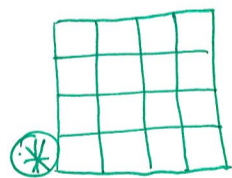
Sprite
~~Alien~~ Splat

- Sprite placed on a square

Work in partners to give directions to land on (splat) the sprite.

Metalanguage: *What are the key concepts or procedures that you want students to understand as a result of this lesson?*

Sprite	forward	East
directions	back	West
left	turn	North
right	grid	South
	quarter turn	path
	full turn	sequence

Teaching Activities: *What strategies will you use to teach the content and skills? How long will you spend on each of those strategies and with the content? How would you address different levels or prior knowledge?*

Lessons take place over several weeks.

Unplugged Lesson 1 {
1. Start with partner game.
2. Place a direction card on each square to show path followed. ↑→
3. Copy directional path on own grid paper.

(Lesson 2 Plugged) 4. In pairs — on device www.code.org (Lesson 4 Sequencing with Scratch.)

(Lesson 3 Unplugged) 5. My Robotic Friends Jr (cup activity) (code.org Lesson 6)

(Lesson 4) Plugged. 6. Programming with Scat (code.org Lesson 7)

7. Programming with Rey and BB-8

8. ~~Scra~~ Introduce Scratch Junior → Teach → Drive Across The City task.

Lesson Closure: *How will you bring the lesson to a conclusion?*

✱ Student sharing & discussion of examples | successes | failures

Dr Elena Prieto and Mr Daniel Hickmott

22 April 2018

Assessment: *How will you know whether the students achieved what you wanted them to achieve?*

Follow | ~~create~~ & represent a sequence of steps (Sprite Splat)

Using Scratch Junior to move a sprite along a path.
(test & evaluate the effectiveness of the steps | decisions)

Resources: *What materials do you need for this lesson? Have you used ideas from elsewhere?*

Scratch Junior — task cards

Devices   ipad | computers)

Grid paper + Maths workbooks | grid paper

Direction cards

Cups