

K-6 Science + Tech.

Which of the following outcomes from the Digital Technologies context of the new ~~7-8~~ Technology Mandatory syllabus does the planned lesson address? Please circle all those that apply from the list below:

- identifies components of digital systems + explores how data is represented (ST1-11DI-T)
- designs, communicates and evaluates innovative ideas and creative solutions to authentic problems or opportunities (TE4-1DP)
- plans and manages the production of designed solutions (TE4-2DP)
- designs algorithms for digital solutions and implements them in a general-purpose programming language (TE4-4DP)
- explains how data is represented in digital systems and transmitted in networks (TE4-7DI)
- explains how people in technology related professions contribute to society now and into the future (TE4-10TS)
- uses materials, tools + equipment to develop solutions for a need or opportunity (ST1-2DP-T)
- describes, follows + represents algorithms to solve problems (ST1-3DP-T)

NSW Syllabus Outcome(s): *Does the lesson involve concepts or outcomes from the new 7-8 Technology Mandatory 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?*

- MA1 - 9MG (informal units - length)
- MA1 - 16MG - (position)
- EN1 - 1A Speaking + listening

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

Present beebot ~ distribute to pairs
 Give 5 mins to discover what the beebot can do.
 Report back - class discussion

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

Positional language ~ left- right forwards backwards
 Sequencing

Please turn page over

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?*

Introduce button + term - ← left turn → right turn ↑ forward ↓ backward
View code of arrows - read the sequence of code

Chn trace finger on floor to code - What shape does it make?

\$ Teacher models coding of beebot + testing

Chn code own beebot + test

Challenge: How can we turn our square into a rectangle?
Investigate independently / pairs / small group
Code onto small whiteboard to show

Share ideas : what problems occurred?
: what did you learn?
: what would you like to know?

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

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

- Observation of shape formation
- did they use the correct language?
- did they apply the correct sequence?

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

beebots
whiteboards | markers