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 apply from the list below:

- 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)

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?*

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

- Check prior knowledge of coding - brainstorm
- Students plan their own activity with their partner.- 'Think like a computer'
  - Give parameters eg. only verbal instruction, 6 steps, take partner from point A to B, no questions or feedback.
- Linking activity to metalanguage.

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

- algorithm
- coding
- sequences
- loops
- events
- conditionals

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?*

"Teaching coding Unplugged":
- My robotic friends task (45mins)
- Students will understand how to write out an algorithm + about scale.
    - repitition and loops.
- Students can move at their own pace for different levels of prior knowledge.

Extension activity - Get students to solve problem of building tower without it hitting other cups.

- Students work through lightbot at their own pace.
    - Has many levels for a range of learning abilities./ prior knowledge

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

- Recap metalanguage
- Basic skills that have been covered : algorithms, sequences, loops.
- Next lesson : Block coding.

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

- Written algorithm
- Lightbot - observation
- Student feedback
- Questioning

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

- Cups
- Lightbot website
- Scale for robotic friends task
- paper
- pen

Ideas from what we learnt over the 2 day course.