Assessment Webinar

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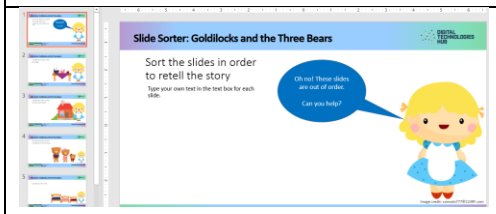
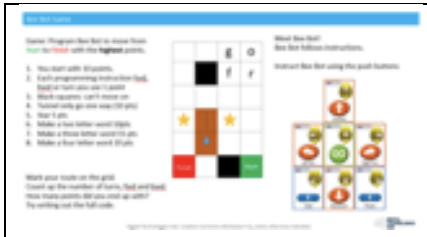
Image	Title and description	Comments
	Fairytale Fun Teachers assess the student's demonstrated knowledge/skills using the checklist provided.	This checklist can be adapted and suited to F-2 Algorithms activities. When using a checklist, look at the achievement standards and content descriptors. Break down the key language and identify what knowledge and skills you would like students to demonstrate.
	Three little pigs Retell the story of the Three Little pigs using a light sensing robot such as Ozobot.	This task is suitable for formative or summative assessment purposes in which students explore algorithms with narratives or procedural text. Suitable for easy adaption with any narrative or procedural text or any kind of robotic device. In formative assessment do they create a working algorithm? Can students demonstrate how it works? Can they follow an algorithm correctly showing the pathway on the map? Looking at extended learning, do they code the steps "Fwd 6" rather than "fwd fwd fwd fwd fwd fwd"?

	**Sample assessment activities:** Programming or Computational Thinking activities (plugged and unplugged activities).	Problem-based learning activities in which a process or procedure is required to solve the problem. EXAMPLE: Get from start to finish with aim of highest points score. Can be a game to land on squares and add points Questions for consideration: Can they explain their game and how to get from start to finish? How do they describe movement and directions? Do they use arrows or steps, right or left?
	**Lunch box data** Use this assessment task to explore data collection, analysis and presentation.	Years 3-4 Provides a checklist to assist with assessment.
	**Pixels and binary digits** Students are given a bitmap image made up of coloured pixels. They explain how the image is made up of binary digits that represent each pixel. Students represent 8 colours using binary digits. Teachers assess the student's demonstrated knowledge/skills using the checklist provided.	Years 5-6 and Years 7-8 (discover what they know) You could provide the assessment task regardless of students experience with 3-bit binary. Refer to this site to explore and have a play and come back to the assessment task https://studio.code.org/s/pixelation/stage/3/puzzle/1 Yrs 7-8 would focus on more complex binary numbers and 24-bit colour (made up of 3 x 8 bit binary digits).

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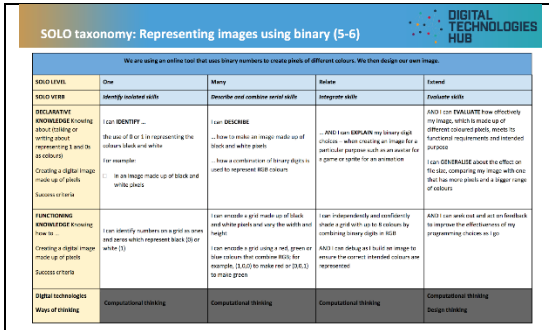
<td> 
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<td>PDF of solo taxonomy</td>
<td>You can use the solo taxonomy to help differentiate the task and help students progress from one stage to the next. Customise to create your own rubrics with your students' input.

Try creating your own SOLO Taxonomy Rubric, based on the achievement standard text, on the HookED website! http://pamhook.com/solo-apps/functioning-knowledge-rubric-generator/</td>
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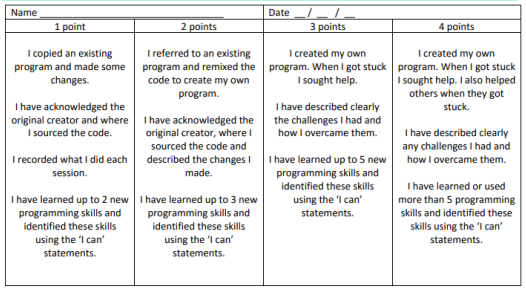 </td>
<td>BBC micro:bit project
Students maintain a project log as evidence towards their work on creating a digital solution using the BBC: micro:bit. The teacher assesses the student's knowledge and skills using the student's project log, self-reflection and think aloud.

Includes a rubric which can be modified. For example you could add programming focus such as have the students included user input, branching and repetition (and are able to explain these).</td>
<td>Years 5-6 (can be adapted and modified for Yrs 3-4 or Yrs 7-8)
Summative assessment
Collect four pieces of evidence to assess students on this task.
1. Design
○ Students provide a document of their design that they created before implementing their digital solution.
2. Project log
○ Students provide their completed project log and use it to discuss how they progressed on the project and how effectively they used their time.
3. Self-reflection
○ Ask students to use the Self-reflection handout to self-assess themselves against the rubric supplied.
4. Think aloud
○ Ask students to create a brief presentation 'think aloud' that explains how they designed and created their digital solution.</td>
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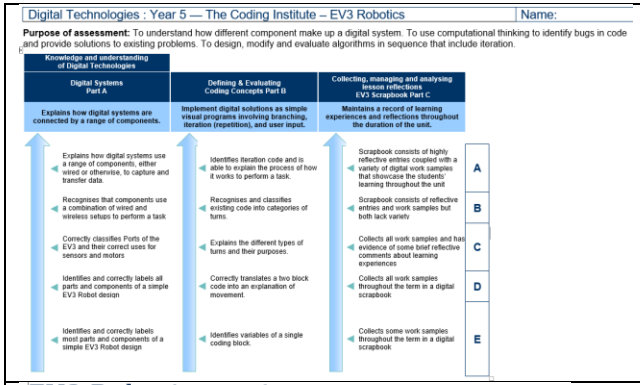
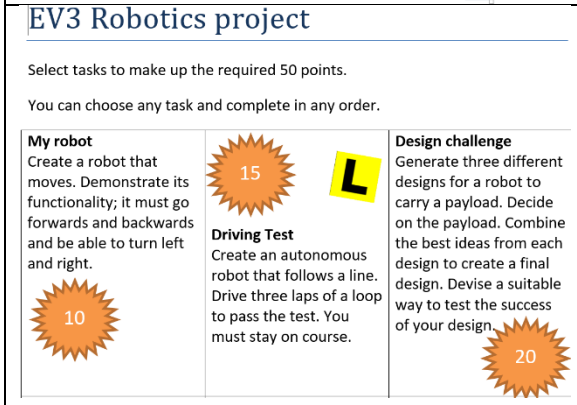
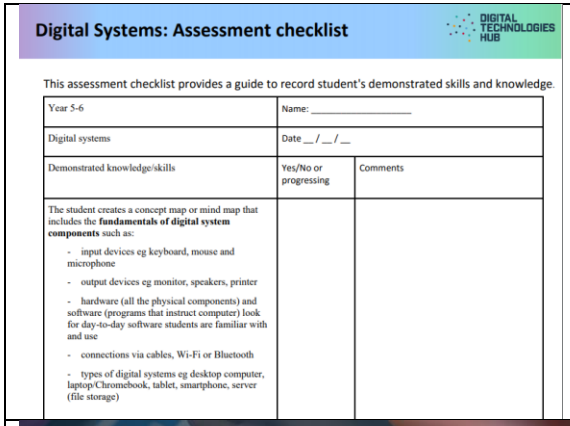
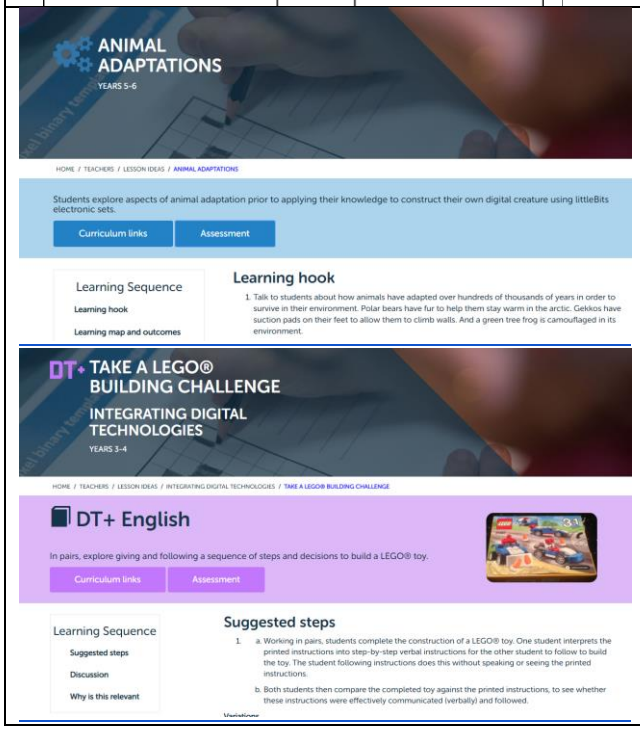
	[Whole school approach to coding](#) (check out this resource for whole school approach ideas) [Year 5 EV3 robotics sample assessment](#)	Years 5-6 This assessment can be adapted for other robotics technology, not just Lego EV3.
	[SOLO Taxonomy robotics](#) This can be used as a guide but depends on your project focus. [Assessing students' work in robotics](#) In this short video, Dr Ethan Danahy talks through his assessment approach for a unit where students design and create a robotic animal in teams. This could be useful for teachers who are seeking ideas for designing assessment around robotics projects, including assessment characteristics.	Years 7-8 Use a project based approach to assess students as they complete tasks that are self-chosen. Create rubrics negotiated with students.

Create a line following robot and explain how it works. Create a short 30 second video to demonstrate it working as you explain the sensors used and the code you used. 20 Text-based code Create your code using a text-based programming language. Demonstrate how your robot works and explain your choice of code. 20 Draw or write an algorithm to show the steps of how your robot will operate. 10 Coding Ninja Help another group to create their code. Gain a ninja token from that group. 10 20 L **Driving Test** Drive your car around a circuit and demonstrate how your robot avoids obstacles. 20 L **Driving Test** Park your autonomous robot. Choose a parallel park, angle parking or 90˚ parking. 10 Group reflection Complete a group reflection. 5 **Design feedback** Give helpful design feedback to another group.		
	ScratchJr: Assessment ScratchJr Assessments is a resource to assess students' understanding of the programming blocks in the ScratchJr iPad app.	Years F-4 Assess students' understanding of programming concepts using block puzzles. For consideration: Can students identify the correct output? Extension: Can students create their own algorithm puzzles for peers?

 **Digital Systems: Assessment checklist** DIGITAL TECHNOLOGIES HUB This assessment checklist provides a guide to record student's demonstrated skills and knowledge. Year 5-6 | Name: _____ Digital systems | Date __ / __ / __ Demonstrated knowledge/skills | Yes/No or progressing | Comments The student creates a concept map or mind map that includes the **fundamentals of digital system components** such as: - input devices eg keyboard, mouse and microphone - output devices eg monitor, speakers, printer - hardware (all the physical components) and software (programs that instruct computer) look for day-to-day software students are familiar with and use - connections via cables, Wi-Fi or Bluetooth - types of digital systems eg desktop computer, laptop/Chromebook, tablet, smartphone, server (file storage)	[Digital Systems] Students create a concept map or mind map that demonstrates what they know about digital systems, how different components are connected and the role they play, using the school network as an example.	Years 5-6 Concept mapping could be used for a variety of topics. This could even be undertaken at the beginning of a unit of instruction and at the end to compare student changes in learning.
 ANIMAL ADAPTATIONS YEARS 5-6 HOME / TEACHERS / LESSON IDEAS / ANIMAL ADAPTATIONS Students explore aspects of animal adaptation prior to applying their knowledge to construct their own digital creature using littleBits electronic sets. Curriculum links | Assessment Learning Sequence Learning hook Learning map and outcomes Learning hook 1. Talk to students about how animals have adapted over hundreds of thousands of years in order to survive in their environment. Polar bears have fur to help them stay warm in the arctic. Gekkos have suction pads on their feet to allow them to climb walls. And a green tree frog is camouflaged in its environment. DT+ TAKE A LEGO® BUILDING CHALLENGE INTEGRATING DIGITAL TECHNOLOGIES YEARS 3-4 HOME / TEACHERS / LESSON IDEAS / INTEGRATING DIGITAL TECHNOLOGIES / TAKE A LEGO® BUILDING CHALLENGE DT+ English In pairs, explore giving and following a sequence of steps and decisions to build a LEGO® toy. Curriculum links | Assessment Learning Sequence Suggested steps Discussion Why is this relevant Suggested steps 1. a. Working in pairs, students complete the construction of a LEGO® toy. One student interprets the printed instructions into step-by-step verbal instructions for the other student to follow to build the toy. The student following instructions does this without speaking or seeing the printed instructions. b. Both students then compare the completed toy against the printed instructions, to see whether these instructions were effectively communicated (verbally) and followed.	[Search lesson ideas]	All DT Hub lesson ideas have assessment advice Click on the "Assessment" button.