HEALTHY EATING
Levels F-2

These series of lessons were created in collaboration with the Digital Technologies Specialist Teacher from Ngalangangpum School, Western Australia

Unit Overview

These lessons complement a unit of work that helps students identify healthy and unhealthy foods. The focus of the lessons is to introduce students to algorithms and sequences of steps through the use of robotics. Students will use Bee-Bots and provide the Bee-Bots with a sequence of steps to help make healthy choices.

Other Curriculum Targeted Areas
Other curriculum areas can be targeted and assessed within this unit.
Other areas of interest may include:
• Health and Physical Education
Further investigation into these areas is required to ensure they align with the following activities. Activities may need be modified to ensure content descriptions and achievement standards are met.

Australian Curriculum Alignment
The following sessions have been created using the Australian Curriculum: Digital Technologies Curriculum. Tasks may need to be modified to ensure state Digital Technologies Curriculum content descriptions and achievement standards are met. ACS has support and documents to help align this unit to other Digital Technology Curricular.

Session
'Session' has been used to define the order of tasks to complete the unit. It does not define a set time required to complete the task. Time allocated to complete a session is the teacher's discretion. This allows for flexibility for the teacher to drive the duration of the task and make modifications if necessary. Sessions can be merged into one set period or one session may run over multiple periods.

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Key Preparation

Digital Devices and Technologies

Robotics (Bee-Bots) have been included within these lessons however it is not essential for assessment. If access to robotics is not available for your school, completing the unplugged lessons will suffice the F-2 standards.

Texts

'The Very Hungry Caterpillar', written by Eric Carle
'Look Inside – What happens eat?', written by Emily Bone, illustrated by Stefano Tongetti

ACS Resources

Resources have been created to help teachers and students unpack and understand topics found within the Digital Technologies Curriculum. These give brief explanations of the topic and the expectations to teach the topic at the curriculum year level. It is intended the information is presented in a way that will set the foundation for further research. You can access these resources via: https://www.acs.org.au/ict-educators.html.

Key Understandings	Key Questions
Students will: ▪ Follow, describe and represent a sequence of steps and decisions needed to solve simple problems. ▪ Use Bee-Bot devices to create and program a sequence of steps.	▪ What are the sequence of steps in the Hungry Caterpillar? ▪ What are the sequence of steps when we eat? What happens in our body? ▪ What steps would you create to code a robot to only pick up healthy foods? ▪ How can you program your bee-bot to only picky up healthy foods.

Key Vocabulary

Algorithms, sequence, sequence of steps, instructions, diagrams, left, right, Bee-Bot

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Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
1.	Algorithms	**Learning Intention** Students create a healthy eating diagram based on the Very Hungry Caterpillar. **Success Criteria** I can create a healthy weekly eating plan for the Very Hungry Caterpillar.	Read the 'Very Hungry Caterpillar' and discuss the types of food that was present in the Model a diagram that shows the days of the week and create a diagram that	Students complete a diagram and creating a healthy eating plan. Focus question: if you were the caterpillar what foods would you eat each day? Are those foods healthy or unhealthy?
Session Resources	• ACS Teacher Resource: Sequence of Steps • Week Healthy Eating Plan Template (located at the end of the unit planner)			
2.	Algorithms Introduction to Bee-Boots	**Learning Intention** Students will create a sequence of steps. **Success Criteria** I can create a sequence of steps that takes my caterpillar through the food it ate on each day of the week.	Recap on the diagram of the food that was eaten by the caterpillar Create one long Bee Bot map and model how the Bee-Bot works and how we can learn to press	Create a simple (straight line) Bee-Boot template that is a strip linear boxes. Students will write out and draw the food that was on each day of the week from the previous session (or draw new ones). Eg: Press the left arrow button 3 times. Land on Monday Press the arrow button 3 times. Land on Tuesday Students can test their week out by operating the Beet-Bot.
Session Resources	• The Bee Bot weekly template (located at the end of the unit planner)			

Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
3.	Introduction to Bee-Boots	**Learning Intention** Students will create a sequence of steps that demonstrate the functions of the body when we eat different foods. **Success Criteria** I can create instructions for my Bee-Bot to follow	Read the book 'Look what happens when you eat.' Create a Bee-Boot plan of what would happen when we eat different foods. In each square draw a symbol or piece of food and show what	Create a Bee Bot templates of (can use the linear one from the previous session) and students need to match the pictures in order then take the Bee Boot through the process of what happens when we eat a particular food.
Session Resources				
4.	Algorithms Drawing and writing	**Learning Intention** Students will create a sequence of steps for a robot to follow. **Success Criteria** I can create a sequence of steps for my Bee Bot to follow.	Pose the question – if you had a robot that you took shopping, what are the types of healthy foods you would want it to buy? If that robot came across an unhealthy food, what would you want it to do? Model drawing foods on your bee bot template. Then draw arrows and create a path that only leads to the healthy items. Write out the instructions to create a sequence of steps. Eg: Take 3 steps forward Pick up the apple Take 3 steps left Do not pick up the chocolate bar.	Students will be provided with a blank Bee Bot mat. They will draw a set of different foods (both healthy and unhealthy). After they have drawn the foods they will create a path to the healthy foods. Students will write out basic steps to follow. Scaffold how much writing they will complete. This could include any key words written out for them to copy or cut and paste onto their Bee Bot supermarket or copy from the board or as an outline on a worksheet.
Session Resources	• Bee Bot template (blank mat with arrows)			
Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity

5.	Algorithms Bee-Bots	**Learning Intention** Students will create a sequence of steps for a robot to follow. **Success Criteria** I can use the Bee Bot to trace the steps in my supermarket and only pick up healthy foods.	Students share the sequence of steps that their Bee-Bot would take to shop in a supermarket.	Take the hard copy worksheet they completed in the previous session and transfer the knowledge to using the Bee-Bots. Students can test out each other super markets to make sure their instructions are correct.
Session Resources	• Bee-Bot mats			
6.	Algorithms Bee-Bots	**Learning Intention** Students will create a sequence of steps for a robot to follow. **Success Criteria** I can use the Bee Bot to trace the steps in my supermarket and only pick up healthy foods.	Before commencing work directly to the Bee-Bots discuss any issues or difficulties that have risen from students using the Bee-Bots. Recap on the different instructions and ensure the students remember what each button and function does.	Students create different healthy items and add those directly to the Bee-Bot mat. They use the skills they have built up to directly program the Bee-Bot. Create different versions of the activity such as: • How many healthy items can you pick up in 2 minutes • For every healthy item they pick up it's 10 points. If they pick up a unhealthy item, take way 5 points. • Create different paths for students to follow. • Students team up with a buddy and create a supermarket for each other.
Session Resources	• Bee-Bot mats			

Assessment – Australian Digital Technologies Curriculum

Content Description	Session Number	Assessment Piece	Assessment Statement
Recognise and explore digital systems (hardware and software) components for a purpose (ACTDIK001)	N/A		
Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)	N/A		
Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003)	N/A		
Following, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)	1 - 6	Unplugged and plugged activities.	Unplugged Activities Students completed a range of unplugged activities to create a sequence of steps to complete an activity. Plugged Activities Students programmed robotics (Bee-Bots) to create and completed a sequence of steps. The sequence of steps focused on creating path for a robot to collect healthy foods.
Explore how people safely use common information systems to meet information, communication and recreation needs (ACTDIP005)	N/A		
Create and organise ideas and information using information systems independently and with others, and share these with known people in safe online environments (ACTDIP006)	N/A		

Assessment – Victorian Digital Technologies Curriculum

Content Description	Session Number	Assessment Piece	Assessment Statement
Identify and explore digital systems (hardware and software components) for a purpose (VCDTDS013)	N/A		
Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (VCDTDI014)	N/A		
Collect, explore and sort data, and use digital systems to present the data creatively (VCDTDI015)	N/A		
Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (VCDTCD017)	1 - 6	Unplugged and plugged activities.	Unplugged Activities Students completed a range of unplugged activities to create a sequence of steps to complete an activity. Plugged Activities Students programmed robotics (Bee-Bots) to create and completed a sequence of steps. The sequence of steps focused on creating path for a robot to collect healthy foods.
Explore how people safely use common information systems to meet information, communication and recreation needs (VCDTCD018)	N/A		
Independently and with others create and organise ideas and information using information systems, and share these with known people in safe online environments (VCDTDI016)	N/A		

Assessment – New South Wales Science and Technology Syllabus

Outcomes and Objectives	Session Number	Assessment Piece	Assessment Statement

observes, questions and collects data to communicate and compare ideas (ST1-1WS-S)	N/A		
collect, sort, organise and present data to communicate information (ACTDIP003)	N/A		
Identifies digital systems and explores how instructions are used to control digital devices (ST-e7DI-T)	1-6	Unplugged and plugged activities.	Unplugged Activities Students completed a range of unplugged activities to create a sequence of steps to complete an activity. Plugged Activities Students programmed robotics (Bee-Bots) to create and completed a sequence of steps. The sequence of steps focused on creating path for a robot to collect healthy foods.

Assessment - Western Australian Digital Technologies Curriculum			
Pre-Primary Syllabus	**Session Number**	**Assessment Piece**	**Assessment Statement**

Digital systems (hardware and software) are used at home, in the school and in the community (ACTDIK001)	N/A		
Data can have patterns and can be represented as pictures and symbols (ACTDIK002)	N/A		
Collect and use data of any kind (ACTDIP003)	N/A		
Use data to complete a task (ACTDIP003)	N/A		
Engage with information known people have shared in an online environment, and model strategies to stay safe online (ACTDIP006)	N/A		
Explore needs for design (WATPPS01)	N/A		
Generate and record design ideas through describing, drawing, modelling and/or a sequence of written or spoken steps (WATPPS02)	1-6	Unplugged and plugged activities	Unplugged Activities Students completed a range of unplugged activities to create a sequence of steps to complete an activity. Plugged Activities Students programmed robotics (Bee-Bots) to create and completed a sequence of steps. The sequence of steps focused on creating path for a robot to collect healthy foods.
Use given components and equipment to safely make simple solutions (WATPPS03)	6	Use of robotics	When using robotics, students ensured they used the Bee-bots safely and correctly when programming their sequence of steps.
Use personal preferences to evaluate the success of simple solutions (WATPPS04)	N/A		
Work independently, or with others when required, for solutions (WATPPS05)	N/A		

Assessment - Western Australian Digital Technologies Curriculum			
Year 1 Syllabus	**Session Number**	**Assessment Piece**	**Assessment Statement**
Digital systems (hardware and software) are used in everyday life and have specific features (ACTDIK001)	N/A		

Data can have patterns and can be represented as pictures, symbols and diagrams (ACTDIK002)	N/A			
Present data of any kind using a variety of digital tools (ACTDIP003)	N/A			
Use data to solve a simple task/problem (ACTDIP003)	N/A			
Share and publish information with known people in an online environment, modelling strategies to stay safe online (ACTDIP006)	N/A			
Explore opportunities for design (WATPPS06)	N/A			
Develop and communicate design ideas through describing, drawing, modelling and/or a sequence of written or spoken steps (WATPPS07)	1-6	Unplugged and plugged activities.	Unplugged Activities: Students completed a range of unplugged activities to create a sequence of steps to complete an activity. Plugged Activities: Students programmed robotics (Bee-Bots) to create and completed a sequence of steps. The sequence of steps focused on creating path for a robot to collect healthy foods.	
Use given components and equipment to safely make solutions (WATPPS08)	6	Use of robotics	When using robotics, students ensured they used the Bee-bots safely and correctly when programming their sequence of steps.	
Use personal preferences to evaluate the success of design processes (WATPPS09)	N/A			
Work independently, or with others when required, to create and safely share sequenced steps for solutions (WATPPS10)	N/A			

Assessment - Western Australian Digital Technologies Curriculum			
Year 2 Syllabus	**Session Number**	**Assessment Piece**	**Assessment Statement**
Digital systems (hardware and software) are used for an identified purpose (ACTDIK001)	N/A		
Data can have patterns and can be represented and used to make simple conclusions (ACTDIK002)	N/A		
Present data using a variety of digital tools (ACTDIP003)	N/A		
Use data to solve similar tasks/problems (ACTDIP003)	N/A		
Share and publish information in a safe online environment, with known people (ACTDIP006)	N/A		
Explore design to meet needs or opportunities (WATPPS11)	N/A		
Develop, communicate and discuss design ideas through describing, drawing, modelling and/or a sequence of steps (WATPPS12)	1-6	Unplugged and plugged activities.	Unplugged Activities: Students completed a range of unplugged activities to create a sequence of steps to complete an activity. Plugged Activities: Students programmed robotics (Bee-Bots) to create and completed a sequence of steps. The sequence of steps focused on creating path for a robot to collect healthy foods.
Use components and given equipment to safely make solutions (WATPPS13)	6	Use of robotics	When using robotics, students ensured they used the Bee-bots safely and correctly when programming their sequence of steps.
Use simple criteria to evaluate the success of design processes and solutions (WATPPS14)	N/A		
Work independently, or collaboratively when required, to organise information and ideas to create and safely share sequenced steps for solutions (WATPPS15)	N/A		

Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**

Is it healthy? Yes No	Is it healthy? Yes No	Is it healthy? Yes No	Is it healthy? Yes No	Is it healthy? Yes No	Is it healthy? Yes No	Is it healthy? Yes No

Cut the squares to make one, long line. Place each day of the week at a different spot. Tell me how many times you would need to press the arrow to take the Bee-Bot through the days of the week and the different food you would eat on each day.

Bee-Bot Supermarket
Take your Bee-Bot shopping. Draw in 8 different foods. Make sure your Bee-Bot only picks up the food that is healthy!