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Computing Revision Worksheet (Grade 4) Unit 1: Computational Thinking & Programming		Name:	
Date:		Section:	

1 Mark True of False. Also underline the incorrect word.

Statement		True/False
I.	Forever loop repeats steps for a specific number of times.	False
II.	A computer process the data and gives us information as an output.	True
III.	Algorithms are made up of clear and simple steps.	True
IV.	Count-controlled loop is also known as an indefinite loop.	False
V.	Going to school routine is an example of linear algorithm.	True
VI.	An event block triggers an action such as making sprite move.	True
VII.	Sensing block is used for the output.	False
VIII.	Answer block saves the user's input.	True

2 List Either Input Or Output for the following statements.

Statement		Input / Output
I.	Dialing numbers on a phone keypad.	Input
II.	Drawing with a digital pen.	Input
III.	Watching rhymes on YouTube.	Output
IV.	Displaying projector content on class white board.	Output
V.	Using a microphone to record your voice.	Input
VI.	Beeping when a button is pressed	Output
VII.	A morning alarm ringing on your phone.	Output
VIII.	Using a joystick to control a game player.	Input

3 List the steps of the following algorithms in correct order.

I. Algorithm for Taking a Photo 3 Press the capture button 1 Open the camera app 2 Point the camera at the subject 4 Save or view the photo	**II. Algorithm for Planting a Seed** 3 Cover the seed with soil 2 Put the seed in the hole 1 Dig a small hole in the soil 4 Water the soil
III. Algorithm for Completing homework 1 Open blank page of the notebook 2 Prepare the page 4 Close the notebook 3 Complete the given task	**IV. Algorithm for Packing a School Bag** 4 Zip the bag closed 3 Put books and supplies inside 2 Check your timetable 1 Get your school bag

4 Define the following terms.

Algorithm: An algorithm is a list of steps that you follow to solve a problem or do a task. Algorithms can be written instructions, spoken instructions or even diagrams.

Linear algorithm: A linear algorithm is a sequence of steps that are completed one after another in an order, without repetition. Each step happens exactly once, from start to finish.

5 What is an indefinite loop?

An indefinite loop is a type of loop that repeats an action an unknown number of times. It continues until a certain condition is met. List the purpose of algorithms in programming.

6 How does repeat loop help us to make a program?

Loop helps us to make a program in the following ways:

- Shorter to read,
- Easier to understand
- Faster to write.

7 Differentiate between a count-controlled loop and a forever loop.

Count-controlled loop	Forever loop
Repeats instructions for a fixed number of times and then stops itself.	Repeats instructions continuously without stopping unless user presses stop button.

8 Differentiate between an input and output.

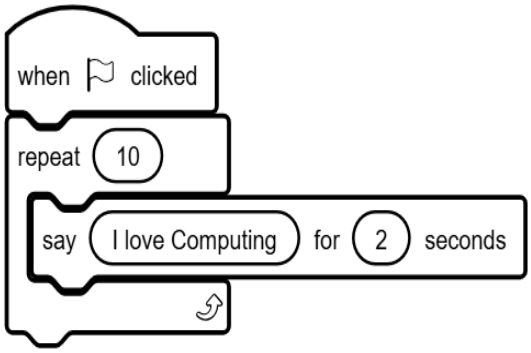
Input	Output
Instructions given to the computer. Example: typing through a keyboard.	Data/result shown to user after processing. Example: hearing voice through a speaker.

9 Look at the following code. Do your working and explain how many times will the sprite say "I love Computing"?

Working: 10* 1= 10

Time: 10*2=20 secs

Ans: the sprite will say "I love Computing" 10 times in total and it will give a 20 sec pause altogether.



10 Look at the code below. It's supposed to make the sprite say take 20 steps altogether, but something is wrong. Fix it!

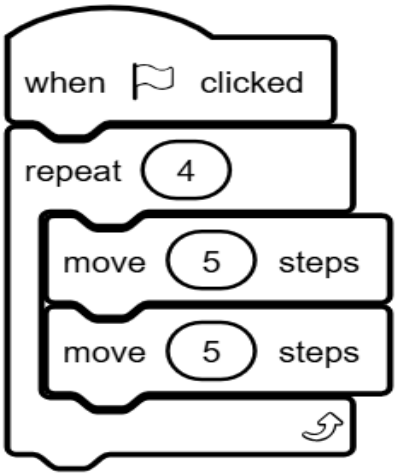
Corrected version:

When Flag clicked

Repeat 4

Move 5 steps.

Note: students can make the block of code to show the corrected version of the code.

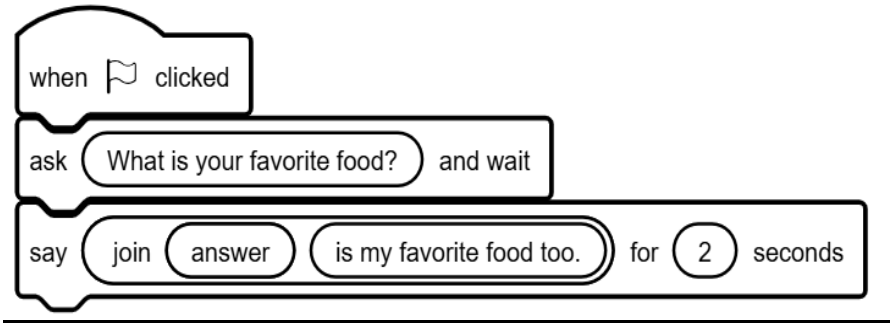


11 What is the purpose of "join" block? Give an example of join block.

Join block joins the two pieces of trexts together to make one complete sentence.

Example: join "My name is" answer for 2 seconds.

12 What will the following code do?



The sprite will ask "What's your favorite food? And it will wait for you to type your answer/give the answer input.

Then it will say" answer(whatever answer you saved) is my favorite food too, for 2 seconds.

13 **List the purpose of each block below.**

Block	Purpose
Join “apple” and “banana”	Joins two pieces of texts/blocks
Wait 1 sec	Gives a pause of 1 second
If on edge bounce	If sprite touches the wall, it will bounce back
Answer	Saves the text entered by the user when ask() block is used

1 **Name the two scratch blocks used for:**

Input: sensing block (ask)

Output: looks block (say)