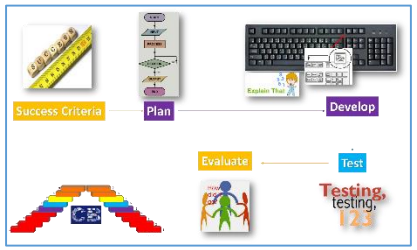



**Learning Objectives:**

- To answers questions on programming concepts.
- To use the Cardinal Wiseman Programming Cycle to show evidence of attempting the Scratch programming concept challenge.

# Computing

Spring 1

# Year 7 Assessment

## Success Criteria

| Cycle Stage | LAP | MAP | HAP |
|---|---|---|---|
| **Key Terms** | Alternate word for the keyword. (9) | Describes meaning of keywords.(18) | Explains the keyword in the context of Scratch.(27) |
| **Develop** | De facto standards – screenshots.(1) | De facto standards – screenshots with description (2) | De facto standards – screenshots with explanation (using key terms). (3) |
| | Solution: Limited completion of challenge. (3) | Solution: Partial solution to challenge. (6) | Solution: Completed challenge successfully. (9) |
| **Test** | Testing: Screenshot evidence of program running (not necessarily successful). (3) | Testing: Partial testing without test table. (6) | Testing: Clear evidence of testing with test table. (9) |
| **Evaluate** | Sentence describing how well you feel you did in test. (1) | Paragraph explaining how well you feel you did in test, with examples. (2) | Paragraph analysing how well you feel you did in test, with suggestions of improvements you could make if you had more time. (3) |

## Knowledge

Understanding the meaning and use of programming concepts.

## Develop

3 challenges demonstrating use of the programming concepts in Scratch.

## Test

Screenshot evidence of end position of Scratch challenges – script and stage.

## Evaluate

Underneath your evidence in the Working Document, evaluate how well you completed the task against the success criteria: To define, develop, test and evaluate.

# Programming Concepts - Knowledge

- Open up your working document, e.g. Year 7 Spring 1.docx (saved in your Scratch folder last week).
- Insert heading underneath your work from last lesson:
- Year 7 Assessment – Spring 1 date
- Answer the 9 questions the teacher will ask underneath the heading (in sentences, if possible)
- Once you have completed this section, you will create 3 small programs in Scratch, and should record evidence of program development following the de facto standards (screenshot – explanation – test – evaluate)

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Algorithm

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Sequence

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Input

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Variable

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# List

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Process

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Selection

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Iteration

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# What is meant by:

# Output

**Purple (LAP):** Can you think of another word for it?
**Blue (MAP):** Can you describe the meaning of the word (in relation to programming)?
**Yellow (HAP):** Can you explain the keyword linking it to activities you have completed in Scratch?

Type your answer into your working document (remember capital letters for the beginning of sentences and full stops at the end)

# Sequence

**Challenge 1:**

- Select a backdrop ‘basketball court’ and a sporty looking sprite.
- Program the sprite to say “Hello”.
- Program the sprite to walk 50 steps.
- Program the sprite to say “Exercise is fun”.
- Change backdrop to a football pitch.
- Program the sprite to say “Try to exercise every day”.

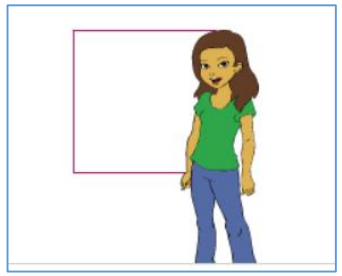



*Hint: Events, Looks and Motion*

# Iteration

**Challenge 2**:
Program a sprite of a girl to walk in a square.

*Hint: Pen Down, Control, Motion*



# Selection

**Challenge 3:**

- Select a backdrop and sprite of your choice.
- Ask the user if they are a boy or a girl.
- If they are a boy, the output should be “You are a hard working young man.
- If they are a girl, the output should be “ You are a hard working young lady.”
- Tell them to “Keep up the good work”.

*Hint: Data, Motion, Looks, Control*



***Purple (LAP):*** *Screenshot script and stage, run program to show it working.*
***Blue (MAP):*** *Screenshot script and stage, describe what it shows and run program to show the different elements of the program working.*
***Yellow (HAP):*** *With screenshot evidence of stage and script, explain the programming keyword linking it to activities you have completed in Scratch?*

Once you have created the program, screenshot the different stage views (as shown above).
Make sure you have a screenshot of the script for each challenge, even if not fully completed.