

Lesson 4.5: Assessment Exercises

Objectives

After completing this lesson, students will:

- ❖ Have an understanding of how much they learned and understood during Unit 4

Agenda

- | | |
|------------------------------------------|---------|
| 1. Student Activity | 30 mins |
| 2. Review Activity Solutions and Wrap Up | 20 mins |

Preparation

- Print student activity worksheet (one per student)

Resources & Links

- None

1. Student Activity: Assessment Puzzles

Distribute one worksheet per student. This is an assessment activity for material covered in Unit 4. Explain the activity to students. Leave enough time at the end to go over the answers.

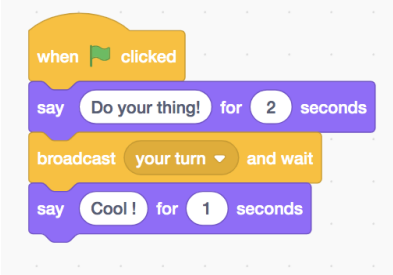
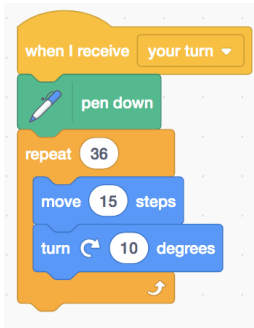
2. Review Activity Answers



Engage students in an interactive discussion and review of the answers to each of the exercises.

Solution to Student Activity:

1. Explore the script for the cat sprite and the beetle sprite.

 <p>1</p> <p>4</p>	 <p>2</p> <p>3</p>
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- What does the beetle draw when it receives the 'your turn' broadcast message?
A triangle
- When the green flag is clicked, what is the sequence in which the code runs?
Show it by entering numbers from 1 to 4 in the circles.

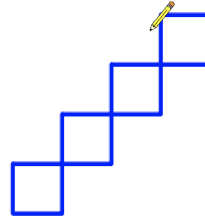
2.

a) Which script will correctly draw the following pattern.

(D)

```

repeat 4
  Square length=40
  move 40 steps
  change y by 40
  
```

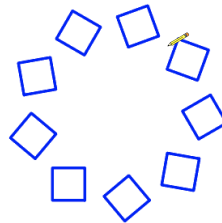


b) Which script will correctly draw this pattern.

(C)

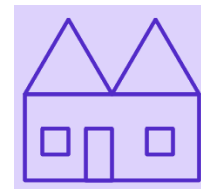
```

repeat 9
  Square length=40
  turn 40 degrees
  move 80 steps
  
```



3. This purple house was drawn using 2 procedures (blocks). Each one draws a different shape or shapes.

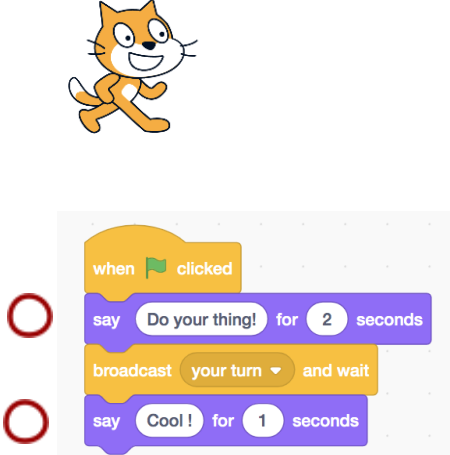
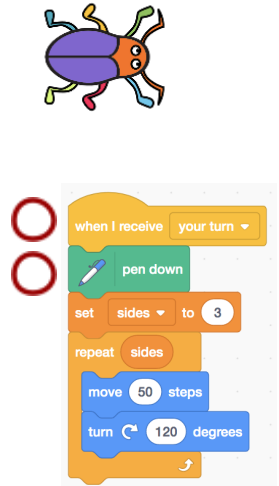
List each procedure and what it draws. If the procedure has 0, 1, or 2 parameters, state what they do.



Procedure name	What shape does it draw?	Any parameters? How many?	What do the parameters represent (for example, width)
Triangle	Triangle	(Could if wanted different size triangles)	
Rectangle	Rectangle or square	2	Width and Height

Student Activity: Check Your Knowledge

1. Explore the script for the cat sprite and the beetle sprite.

 <p>The script for the cat sprite starts with a 'when green flag clicked' block. It then has a 'say Do your thing! for 2 seconds' block, followed by a 'broadcast your turn and wait' block, and finally a 'say Cool! for 1 seconds' block. There are two empty red circles to the left of the script for labeling.</p>	 <p>The script for the beetle sprite starts with a 'when I receive your turn' block. It then has a 'pen down' block, a 'set sides to 3' block, a 'repeat sides' loop containing a 'move 50 steps' block and a 'turn 120 degrees' block, and finally a 'pen up' block. There are two empty red circles to the left of the script for labeling.</p>
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a. What does the beetle draw when it receives the *'your turn'* broadcast message?

b. When the green flag is clicked, what is the sequence in which the code runs? Show it by entering numbers from 1 to 4 in the circles.

2. The following procedure called **'Square length=40'** draws a square:

The drawing sprite is in the middle, pointing to the right.



The procedure 'Square length=40' starts with a 'define Square length=40' block. It then has a 'pen down' block, a 'repeat 4' loop containing a 'move 40 steps' block and a 'turn 90 degrees' block, and finally a 'pen up' block.

a) Which **scripts** will correctly draw the following pattern.

(A)

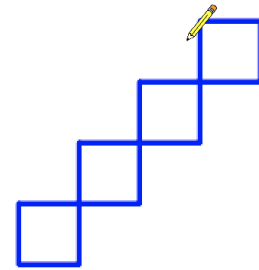
```

repeat 4
  Square length=40
  move 80 steps
  
```

(B)

```

repeat 4
  move 40 steps
  change x by 40
  Square length=40
  
```



(C)

```

repeat 2
  Square length=40
  move 40 steps
  Square length=40
  
```

(D)

```

repeat 4
  Square length=40
  move 40 steps
  change y by 40
  
```

b) Which script will correctly draw this pattern.

(A)

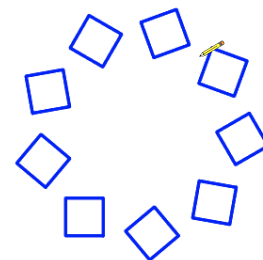
```

repeat 9
  Square length=40
  turn 90 degrees
  move 80 steps
  
```

(B)

```

repeat 7
  Square length=40
  turn 40 degrees
  move 80 steps
  
```



(C)

```

repeat 9
  Square length=40
  turn 40 degrees
  move 80 steps
  
```

(D)

```

repeat 9
  turn 20 degrees
  Square length=40
  Square length=40
  
```

3. This purple house was drawn using 2 procedures (blocks). Each one draws a different shape or shapes.

List each procedure and what it draws. If the procedure has 0, 1, or 2 parameters, state what they do..



Procedure name	What shape does it draw?	Any parameters? How many?	What do the parameters represent (for example, width)