Unit 4

Instructional Day: 19  
Topic Description: This lesson builds on previous concepts to create a timer. Objectives:  
The students will be able to:

Create a timer. Outline of the Lesson:

• Review of Rock Paper Scissors solutions (10 minutes)

• Creation of a timer (15 minutes)

• Review of Timer solutions (5 minutes)

• Introduction of Timing Game (15 minutes)

• Timing Game theme (10 minutes) Student Activities:

• Review Rock Paper Scissors solutions.

• Create a timer.

• Review Timer solutions.

• Choose Timing Game theme.   
Teaching/Learning Strategies:

Review of Rock Paper Scissors solutions  
o Review rps solution.sb and rps solution b.sb.  
o Allow students to share their own unique solutions.

Creation of a timer  
o Explain to students that they will make a timer that will count down from 10 to 0. o Show students Timer Project.

Review of Timer solutions  
o Allow students to share their own unique solutions. o Review timer solution a.sb and timer solution b.sb.

Introduction of Timing Game  
o Have students help build an example. (See timing.sb.) o Review Timing Game Sample Rubric.

Timing Game theme  
o Circulate room and help students pick the theme of their timing game.

Resources:

• rps solution.sb (modified version of Jesse Moya’s solution)

• rps solution b.sb (modified version of Jesse Moya’s solution)

• Timer Project

• Timing Game Sample Rubric

• timer solution a.sb   
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timer solution b.sb timing.sb

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Timer Project

How to make a timer in Scratch:

• Create a variable called timer.

• When the flag is clicked, initialize the timer to 10.

• Continually, wait 1 second and check if the timer = 0

• output the current time either with a sprite or just show the variable

• If the timer = 0 make either the background or a huge sprite say “Time’s Up”

• When the flag is clicked, everything should start over.

• Be creative as to what you want your program to look like.

• Make sure the timer stops at 0 and does not continue into negatives.

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Timing Game Sample Rubric

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Do you have?

Points Possible

Yes

No

Points Earned

The Game

Have 3 or more “timed” sprites

10

Have 4 or more “timed” sprites

5

Use a timer for your game

5

Keep score (points)

10

Give the user feedback as to how well they timed their button pressing

10

Have a help screen with directions

5

Does the game reset when the flag is clicked

10

Does the game stop when it is over

5

Does the game notify the user when it is over

10

Does the game keep track of how many “perfects” in a row

5

Does the game get harder as you keep playing

5

Peer Grading

20

Extra Credit

Have the best project as voted on by peers

Up to 10

TOTAL:

100

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