

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### Improving Understanding of Multiplication Using “Arithmetic PhET Simulation”

By the end of this lesson, you will be able to:

- Describe various strategies to multiply whole numbers.

1. Go to

[https://phet.colorado.edu/sims/html/arithmetric/latest/arithmetric\\_en.html?screens=1](https://phet.colorado.edu/sims/html/arithmetric/latest/arithmetric_en.html?screens=1)

To begin, you will track your score and time on “Multiplication Level 1” (Make sure you have the timer ON! ).

**Multiply Level 1**  
 Score: \_\_\_\_\_  
 Time: \_\_\_\_\_

2. Use your completed multiplication chart from the sim to answer these questions:

- a. On the number chart below, show how to represent  $5 \times 3$  using the sim.

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

$5 \times 3 = \underline{\hspace{2cm}}$

- b. Discuss your answer to part a with a classmate. What similarities and differences do you notice between your answers? Can you think of any other ways to represent  $5 \times 3$ ?
- c. Record at least 2 ways (different from above) to find the product.

$5 \times 3 =$

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

$5 \times 3 =$

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						



- d. Use the charts below to show 4 different ways to find the product  $6 \times 3$ .

$6 \times 3 =$

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

$6 \times 3 =$

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

$6 \times 3 =$

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

$6 \times 3 =$

X	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						



3. Now, track your score on “Multiplication Level 2” and “Multiplication Level 3”.

<b>Multiply Level 2</b>	<b>Multiply Level 3</b>
Score: Time:	Score: Time: