

Name \_\_\_\_\_ Date \_\_\_\_\_

### The Great Shoe Slide

Every time you slide your shoe, record the distance it travels in your data table. Test your shoe three times, and record the results each time.

My type of shoe: \_\_\_\_\_

<b>Trial</b>	<b>Distance (cm)</b>
1	
2	
3	

Order your distance results from least to greatest:

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

Circle the middle number, the median.

The teacher will make a group with all of the other students who have your same type of shoe (tennis shoe, not tennis shoe). Ask each student their median, middle number, and write them in the table below. Then, order the medians from least to greatest.

Finally, circle the median of your whole group.

Group medians	
Order from least to greatest	

As a class, complete the following data table,

Type of Shoe	Distance (cm)
Tennis Shoes	
Not Tennis Shoes	

1. Which shoe slid the furthest? \_\_\_\_\_

2. Which shoe did not slide much at all? \_\_\_\_\_

3. Friction is the force you feel between the tennis shoes and the gym floor. Friction causes things to slow down or stop. How could this be useful?

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4. What patterns do you see in the different students' tennis shoes?

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5. What patterns do the furthest traveling shoes have in common?

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6. What are some patterns you see in the shoes that slid the least?

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Draw a force diagram between your shoe and the floor



