

Super-Journal Week 3:2

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer one of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction).

FICTION

1. You will be making 2 whole page colorful illustrations based off of 2 separate quotes from your reading. Each illustration should take an entire page and should be colored. Make sure that you write the quote, and the page number you got your quote from at the bottom of each colorful illustration.

NONFICTION

1. What is this text about?
2. Summarize the main ideas in 5 sentences.

RI.3.7/RI.1.2

Super-Journal Week 3:2

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer one of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction).

FICTION

1. You will be making 2 whole page colorful illustrations based off of 2 separate quotes from your reading. Each illustration should take an entire page and should be colored. Make sure that you write the quote, and the page number you got your quote from at the bottom of each colorful illustration.

NONFICTION

1. What is this text about?
2. Summarize the main ideas in 5 sentences.

RI.3.7/RI.1.2

Name: _____

Date: _____

Daily Learning Target: Identify familiar forces that cause objects to move.

Investigate: Forces Reading and Questions

Even though you may not feel it, at any given time, you have multiple forces acting on you. These forces are hard at work whether you are sitting, standing, running, or even sleeping in bed! A **force** is a push or a pull on an object, measured in Newtons (N). A pushing force causes an object to move away from the source. A pulling force causes an object to move toward the source. This can easily be demonstrated using a door. To open a door, turn the handle and push — this moves it away from your body. To close the door, pull — this moves the door toward you. Let's explore the various forces that can affect the motion of an object.

Magnetism is an example of a common force and is considered a **non-contact force**. This means that a magnet does not have to physically touch another object to apply a force. Magnets can both attract (pull) or repel (push) other objects. Many metals, such as iron, steel, and nickel are attracted to magnets. If you hold a magnet close to an object made of one of these metals, the magnet will pull, or attract, the object towards it. Magnets can also attract or repel other magnets. Each magnet has a north and south pole. Opposite poles, such as north and south, will be attracted to each other. Like poles, such as north/north or south/south will repel each other. **Gravity** is another non-contact force. The relatively large size of the Earth creates a gravitational pull that is always acting on everything on Earth and pulling objects towards Earth's center. Gravity is the reason your pencil falls to the ground when it rolls off your desk instead of floating in the air. When your pencil is resting on your desk, gravity is still pulling on it, however your desk is applying an opposite force that allows it to rest on the desk without being pulled to Earth's surface. This is called **overcoming gravity**. If another force is applied to an object that is greater than the force of gravity, the object will be able to overcome gravity's pull. Examples of this would be an airplane in the sky, balloons filled with helium, and a tennis ball when it is hit.

Friction is a force that works *against* motion. Friction is a **contact force**, meaning it can only have an effect on an object when the two objects are touching. Friction causes an object's motion to slow down when it comes in contact with another object. As two objects rub together, it can also create heat, like when you rub your hands together when they are cold. The amount of friction produced is determined by the texture and roughness of each surface. Rougher surfaces will create more friction and smoother surfaces will create less friction. In some situations, more friction is required and in others less friction is better. For example, picture car tires and a road. Are either one smooth? No! Both the tires and the road have rough textures so that a lot of friction is produced. This gives the tires a good grip on the road and the ability to stop the car quickly as needed. Now imagine going down a slide. The slide has a smooth surface so that you can slide down it quickly and not get stuck.

Use the passage to answer the following questions in your science notebook.

1. What is a force and how does it affect the motion of an object?
2. What does *non-contact force* mean? What are some examples?
3. If you taped a magnet to the top of a toy car, how could you use another magnet to move it without touching it?
4. Give your own example (not from the passage) of an object overcoming gravity. What other forces are acting on the object?
5. Provide your own example of friction acting on an object. Would you want more or less friction in your scenario?

Name: _____

Date: _____

Daily Learning Target: Explore the force of magnets and how they can attract or repel other magnets or objects.																						
Investigate: Part 1: Magnetic or Not? Using the bar magnet, determine which objects in the tub are magnetic and which objects are not magnetic. Write down the names of the objects in the appropriate column.																						
Magnetic	Not Magnetic																					
What did you notice about the objects that are magnetic? Are there any exceptions?																						
Investigate Part 2: Magnets – Attract or Repel? Using 2 bar magnets, test if the magnets will attract or repel when set up using the diagrams below. Draw arrows to indicate if the magnets will attract or repel each other and write attract or repel on the line.																						
Attract/Repel <table><tr><td>_____</td><td><table><tr><td>N</td><td>S</td></tr></table></td><td><table><tr><td>S</td><td>N</td></tr></table></td></tr><tr><td>_____</td><td><table><tr><td>S</td><td>N</td></tr></table></td><td><table><tr><td>N</td><td>S</td></tr></table></td></tr><tr><td>_____</td><td><table><tr><td>S</td><td>N</td></tr></table></td><td><table><tr><td>S</td><td>N</td></tr></table></td></tr></table>		_____	<table><tr><td>N</td><td>S</td></tr></table>	N	S	<table><tr><td>S</td><td>N</td></tr></table>	S	N	_____	<table><tr><td>S</td><td>N</td></tr></table>	S	N	<table><tr><td>N</td><td>S</td></tr></table>	N	S	_____	<table><tr><td>S</td><td>N</td></tr></table>	S	N	<table><tr><td>S</td><td>N</td></tr></table>	S	N
_____	<table><tr><td>N</td><td>S</td></tr></table>	N	S	<table><tr><td>S</td><td>N</td></tr></table>	S	N																
N	S																					
S	N																					
_____	<table><tr><td>S</td><td>N</td></tr></table>	S	N	<table><tr><td>N</td><td>S</td></tr></table>	N	S																
S	N																					
N	S																					
_____	<table><tr><td>S</td><td>N</td></tr></table>	S	N	<table><tr><td>S</td><td>N</td></tr></table>	S	N																
S	N																					
S	N																					

Additional Practice

Name _____

Review

You can predict whether a product will be greater or less than one of the factors without performing the multiplication.

The rosebush is 2 feet tall. The sunflower is $1\frac{1}{2}$ times as tall as the rosebush. The tulip is $\frac{7}{8}$ the height of the rosebush. What is the order of the flowers from shortest to tallest?

Flower	Height
Rosebush	2 feet
Sunflower	$2 \times 1\frac{1}{2}$ taller than rosebush
Tulip	$2 \times \frac{7}{8}$ shorter than rosebush

From shortest to tallest, the order of the flowers is tulip, rosebush, and sunflower.

1. Which expressions have a value greater than 38? Choose all that apply.

- A. $38 \times \frac{3}{2}$ B. $38 \times \frac{4}{3}$
 C. $38 \times \frac{5}{8}$ D. $38 \times \frac{5}{2}$
 E. $38 \times \frac{10}{6}$ F. $38 \times \frac{3}{7}$

Circle the lesser expression.

2. $7 \times \frac{9}{10}$ or $7 \times \frac{5}{2}$ 3. $15 \times \frac{6}{5}$ or $15 \times \frac{5}{6}$
 4. $\frac{1}{3} \times 2$ or $\frac{7}{5} \times 2$ 5. $\frac{15}{4} \times 20$ or $\frac{12}{15} \times 20$

Write a fraction that makes each sentence true.

6. $\frac{1}{2} \times \frac{\quad}{\quad} < \frac{1}{2}$ 7. $\frac{8}{13} \times \frac{\quad}{\quad} > \frac{8}{13}$
 8. $\frac{15}{6} \times \frac{\quad}{\quad} > \frac{15}{6}$ 9. $\frac{7}{9} \times \frac{\quad}{\quad} < \frac{7}{9}$

10. On Monday, Willie ran $3\frac{1}{2}$ miles. On Wednesday, he ran $\frac{2}{5}$ that distance. On Friday, he ran $1\frac{3}{5}$ times that distance. What is the order of the days from shortest run to longest run?



With your child, practice predicting whether a product will be greater than or less than a certain factor. For example, if the distance from your home to school is 2 miles, and your child's friend lives $\frac{1}{2}$ the distance from the school, have your child determine who lives farther from the school.

Predict Products of Fractions

Name _____

Review

One way to determine whether a product will be greater than or less than the starting value is to consider a product that you know.

Multiply by a whole number Example $\times 5$	John has 5 times as many points as Ed. John has more points.	The product will be greater than the starting amount.
Multiply by a fraction less than 1 Example $\times \frac{1}{2}$	John has half as many points as Ed. John has less points.	The product will be less than the starting amount.
Multiply by a fraction greater than 1 Example $\times \frac{3}{2}$ (or $1\frac{1}{2}$)	John has one and a half times as many points as Ed. John has more points.	The product will be more than the starting amount.

Which numbers will result in a product greater than the factor shown? Select all that are correct.

1. $2 \times$ _____

A. 1	D. 5
B. $\frac{4}{3}$	E. $\frac{5}{7}$
C. $\frac{1}{2}$	F. 0

2. $\frac{5}{3} \times$ _____

A. 1	D. 3
B. $\frac{3}{5}$	E. $\frac{1}{3}$
C. $\frac{8}{3}$	F. $\frac{8}{5}$

Which numbers will result in a product less than the factor shown? Select all that are correct.

3. $1\frac{2}{3} \times$ _____

A. 1	D. 0
B. 2	E. $\frac{2}{3}$
C. $\frac{5}{2}$	F. $\frac{3}{5}$

4. $\frac{6}{7} \times$ _____

A. $\frac{6}{7}$	D. $\frac{7}{6}$
B. 1	E. $\frac{9}{5}$
C. $\frac{3}{4}$	F. $\frac{3}{2}$