

# DAY 2: 6th Grade

ELA

MATH

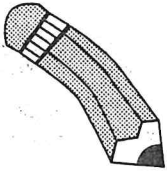
SCIENCE

SOCIAL STUDIES



Name \_\_\_\_\_

# Three Characters in a Boat



Any story must have conflict. A good conflict is what keeps the reader interested. Sometimes the conflict arises from the setting. Imagine three characters in a boat. If the boat is too small, fishing lines could get tangled. If the boat is too large, someone could get lost. Writers create conflict by placing characters into a setting. Complete the activity below to plan your conflict. Then do the Writer's Assignment.

1. Describe the setting. Choose a place that could cause a problem. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. List potential problems the setting description could cause. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Describe two or three characters. Make the following decisions for each character. You may wish to discuss your characters with a learning buddy. Get to know them as though they were your friends. Then you will be more open to their actions as you write.

4. List potential problems the characters could cause. \_\_\_\_\_

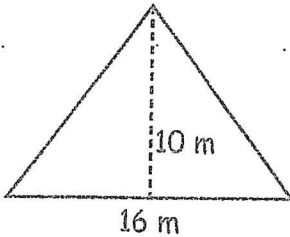
Name	Age	Sex	Attitude Toward Setting	Favorite Activity	Attitude Toward Money

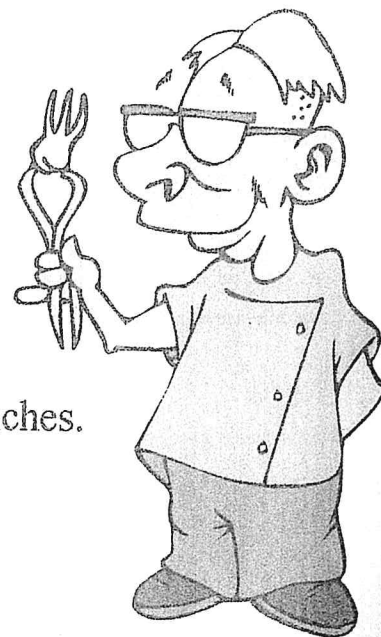
**Writer's Assignment:** Add control of conflict to your bag of writers' tricks. Write a 250- to 300-word story using the characters and problem identified above. Use the setting to help create a conflict. Create two or three different characters and let them react to the conflict. Insert dialogue of all the characters that reveals their attitudes. Insert the actions of all the characters that reveals their attitudes. Insert the thoughts of only one character.



## Lesson #2

2

1. List the factors of 24.
2.  $1\frac{1}{3} + 3\frac{3}{4} = ?$
3. Put these decimals in order from least to greatest.  
0.56      0.056      0.5      0.65
4. Write  $9\frac{1}{2}$  as an improper fraction.
5. Is 25 a prime or a composite number?
6.  $86 + ? = 104$
7. Make a factor tree for 12.
8.  $\frac{3}{4} - \frac{3}{8} = ?$
9. Find the area of the triangle. 
10.  $\frac{3}{10} \times \frac{5}{9} = ?$
11. Closed figures made up of line segments are \_\_\_\_\_.
12. Julie's bill for her last dentist appointment was \$240. Her dental insurance will pay 60% of the bill. What amount will Julie have to pay after the insurance pays its part?
13. Find  $\frac{2}{5}$  of 25.
14. Write 0.22 as a percent.
15. How many feet are in a mile?
16.  $\frac{8}{10} \div \frac{4}{10} = ?$
17. Find the area of a square if a side measures 12 inches.
18.  $8.841 \div 2.1 = ?$
19. What is 60% of 70?
20. Write the ratio *three to seven* in two other ways.



1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

## Lesson 7

6<sup>th</sup> - NTI Day 2**Force and Motion**

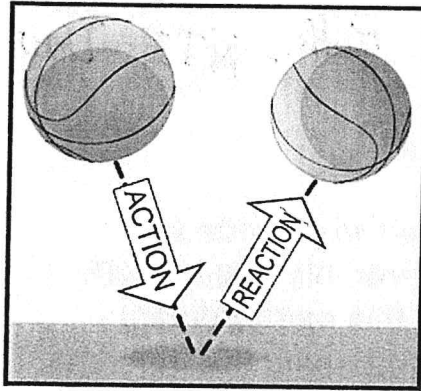
Perhaps you recall Sir Isaac Newton as the individual who made a significant discovery thanks to a falling apple. However, his masterwork, **Principia**, published in 1687, goes much further. In this extraordinary manuscript, Newton amalgamated his hypotheses regarding the movement of things with theories proposed by numerous other scientific minds.

To begin, we must understand that a **force**, which is a push or a pull that possesses both magnitude and direction, plays a central role in the motion of objects. An instance of this would be the wind's force capable of shifting a sheet of paper. Force can also be exerted by your own arms when pulling on a rope. Meanwhile, **friction** is the force that hampers the motion of one surface gliding past another. **Kinetic friction**, or what is sometimes known as *sliding friction*, works against the movement of a mobile object. When you slide or ski down a hill blanketed with snow, you are experiencing kinetic friction. Contrarily, **static friction** obstructs movement from a stationary position, thereby preventing any motion.

Moving on, we delve into Newton's **first** law of motion, often referred to as the law of **inertia**. This principle stipulates that, unless acted upon by a force, a moving object will persist in moving with a consistent speed and direction, while a stationary object remains at rest. Picture a soccer ball at a standstill. The ball would stay put until some force, perhaps your foot kicking it, instigates its movement. It will then persist in moving until it meets a force that modifies its **velocity**, such as friction from the ground or striking the soccer net. The law of inertia is the reason seatbelts are indispensable in a moving car. When the vehicle brakes suddenly, the force applied alters the car's speed. However, your body's inertia continues to move at the vehicle's previous speed, making you feel as though you're being thrust forward.

Next comes Newton's **second** law of motion, which states that a force instigates an object's acceleration. Acceleration refers to the modification of an object's movement. The acceleration of an object correlates with the object's mass, which is the measure of matter, and the amount of force exerted on the object. Objects with more substantial mass have lesser acceleration, while objects subjected to a greater force exhibit higher acceleration. If you find a box of books too cumbersome to shift, you could lessen the mass by taking out a few books or boost the force by asking another person to assist in moving the box.

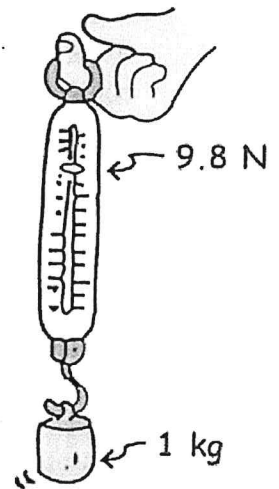
Basketball Diagram



Newton's **third** law of motion describes the principle of action and reaction. When a force is exerted on an object, that object retaliates with an equivalent force in the opposite direction. This concept can be easily grasped by imagining a basketball hitting the ground. The basketball exerts a force on the ground, and simultaneously, the ground reacts with a force on the basketball.

In addition to these laws, Isaac Newton also elucidated the laws of momentum. **Momentum** is a measure that takes into account both the mass of an object and its velocity. A massive truck possesses more momentum than a compact car moving at the same speed due to its larger mass. Nevertheless, the car could surpass the truck in momentum if it travels fast enough.

Furthermore, Newton explored the concept of **gravitational force**, which is the force of attraction between any two objects in the universe. He explicated that the gravitational force is stronger between objects with larger masses and increases as objects draw nearer to each other. The Earth's gravitational force exerted on an object can be gauged by weighing it, thereby determining the object's **weight**. The unit of force is the **Newton (N)**, with one Newton being the force necessary to alter the speed of a one-kilogram object by one meter per second every second.



**END OF TEXT**



# Lesson 7

## Force and Motion

*6<sup>th</sup> - Day 2*

1. What does the word **force** mean in the context of the passage?
  - A. A group of people
  - B. A unit of weight
  - C. A push or a pull with size and direction
  - D. A type of motion
  
2. What is kinetic friction?
  - A. The force that opposes movement from a resting position
  - B. The force that hampers the motion of one surface gliding past another
  - C. The force that opposes the motion of a mobile object
  - D. The force that resists the movement of two objects coming closer
  
3. What does Newton's first law of motion, also known as the law of inertia, state?
  - A. Force causes an object to accelerate
  - B. Object exerts an equal force in the opposite direction when force is applied
  - C. Unless a force is applied, an object in motion continues to move with a constant velocity, while a motionless object remains still
  - D. The quantity of momentum is dependent on the mass and velocity of an object
  
4. How does Newton's second law of motion relate to an object's mass and the amount of force applied to the object?
  - A. Objects with a greater mass have more acceleration
  - B. Objects with a greater mass have less acceleration
  - C. Objects given a lesser force have greater acceleration
  - D. Objects given a greater force have less acceleration
  
5. What does Newton's third law of motion state?
  - A. A moving object will continue to move unless a force is applied
  - B. When force is applied to an object, the object exerts an equal force in the opposite direction
  - C. The gravitational force increases as objects draw nearer to each other
  - D. Force causes an object to accelerate

Name:

# Lesson 7

## Force and Motion

6. What is momentum?
- A. The measure of how much force an object can exert
  - B. The measure that takes into account both the mass of an object and its velocity
  - C. The measure of the resistance of an object to change in its motion
  - D. The measure of how quickly an object can accelerate
7. What does gravitational force refer to?
- A. The force needed to move an object
  - B. The force of attraction between any two objects in the universe
  - C. The force that opposes the motion of a mobile object
  - D. The force that changes the velocity of an object
8. How can one measure the Earth's gravitational force on an object?
- A. By observing the object's speed
  - B. By observing the object's direction
  - C. By measuring the object's acceleration
  - D. By weighing the object
9. How much force does one Newton represent?
- A. The force needed to change the speed of a one-kilogram object by two meters per second each second
  - B. The force needed to change the speed of a one-kilogram object by one meter per second each second
  - C. The force needed to move a one-kilogram object by one meter
  - D. The force needed to stop a one-kilogram object moving at one meter per second
10. How would the measurement of weight change at a place with less gravity?
- A. The weight would increase
  - B. The weight would stay the same
  - C. The weight would decrease
  - D. The weight would double

# PEOPLE TO KNOW

Social Studies  
6  
Day 2

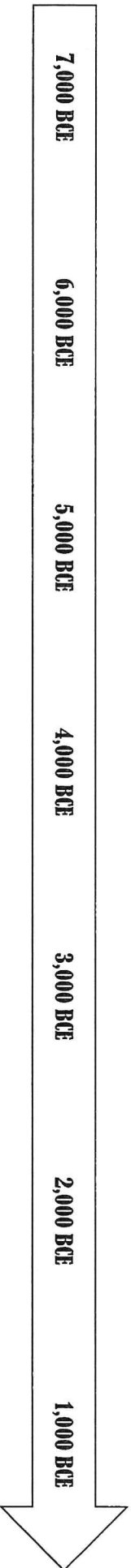
**Directions:** Complete the chart below by first identifying the river valley civilization each is associated with. Then, describe the significant contributions that person made to history.

Name: <b>_ Narmer _</b> Civilization: _____ Contributions:	Name: <b>_ Ramses II _</b> Civilization: _____ Contributions:
Name: <b>_ Hatshepsut _</b> Civilization: _____ Contributions:	Name: <b>_ Huangdi _</b> Civilization: _____ Contributions:
Name: <b>_ Yu the Great _</b> Civilization: _____ Contributions:	Name: <b>_ Sargon of Akkad _</b> Civilization: _____ Contributions:
Name: <b>_ Nebuchadnezzar _</b> Civilization: _____ Contributions:	Name: <b>_ Hammurabi _</b> Civilization: _____ Contributions:

# TIMELINE OF RIVER VALLEY CIVILIZATIONS

**Directions:** Place the following events on the timeline. Include the date and draw in images or symbols for at least 4 of them.

- Farming begins in Egypt (4,500 BCE)
- Aryans invade Indus River Valley (1,800 BCE)
- Hammurabi's Code is written (1,754 BCE)
- Shang Dynasty takes control of China (1,570 BCE)
- Egypt develops a 365-day calendar (2,650 BCE)
- Farming begins in Indus River Valley (4,000 BCE)
- First appearance of silk in China (3,600 BCE)
- Hyksos invade Egypt (1,700 BCE)
- Hittites take over Babylon (1,595 BCE)
- Sphinx is built in Egypt (2,532 BCE)
- Villages Formed in China (5,000 BCE)
- Harappa & Mohenjo-Daro form (2,500 BCE)



Which event from the timeline do you feel was the most significant for world history and why?

# KEY CONCEPTS

**Directions:** Complete the chart below with notes on each aspect of the River Valley civilizations.

	<b>Egypt</b>	<b>Mesopotamia</b>	<b>Harappa</b>	<b>Shang Dynasty</b>
<b>Government</b>				
<b>Religion</b>				
<b>Written Language</b>				
<b>Cultural Achievements, Innovations, &amp; Technologies</b>				

What defense systems did the Babylonians construct?

What can we learn about Babylonian society by studying its defenses?

What does the source tell us about the religious beliefs of the early Babylonians?

*Herodotus was an ancient Greek historian who wrote this description of Babylon.*

“ I.181: The outer wall is the main defense of the city. There is, however, a second inner wall, of less thickness than the first, but very little inferior to it in strength. The center of each division of the town was occupied by a fortress. In the middle of the precinct there was a tower of solid masonry, a furlong in length and breadth, upon which was raised a second tower, and on that a third, and so on up to eight. The ascent to the top is on the outside, by a path which winds round all the towers. On the topmost tower there is a spacious temple, and inside the temple stands a couch of unusual size, richly adorned [decorated], with a golden table by its side. There is no statue of any kind set up in the place, nor is the chamber occupied of nights by any one but a single native woman, who, as the Chaldaeans, the priests of this god, affirm, is chosen for himself by the deity out of all the women of the land. “

— The Histories of Herodotus

