

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

Date: \_\_\_\_\_

Science Core: \_\_\_\_\_

## MIND MAP DIRECTIONS

**Topic: FORCES AND MOTION**

**Required Concepts/Terms:**

**Inertia, motion, acceleration, force, net force, velocity, static friction, rolling friction, sliding friction, gravity, mass, Newton's 3 laws, conservation of momentum, weight, velocity, speed, vector, electromagnetic force**

The purpose of this assignment is to create a mind map that shows your understanding of what you learned in a creative, unique way. A Mind Map is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject. Mind Maps can turn a long list of monotonous information into a colorful, memorable and highly organized diagram that works in line with your brain's natural way of doing things.

**Guidelines:**

1. The topic should be in the center of the mind map.
2. Your name, science core and school year should be somewhere on your mind map.
3. The illustrations are the most important part of the mind map. They should be labeled and hand drawn. Search online to find ideas and examples of drawings. Each term should have at least one connecting image.
4. Show how terms/concepts are connected through the use of arrows and other creative shapes.
5. Your text should be easy to read and neat. Sketch things out first in pencil first. Coloring should be completed with colored pencils. Fine tip markers should be used for outlining.
6. The key should be completed for each item on your mind map (see next page). The images and words you use should show your understanding of the term or concept.
7. Use two pages in your science notebook for your rough draft. Taking time to plan will help your final draft work go smoothly.
8. Your final draft should be completed on four pages of white paper taped together. Very little white space should be seen.
9. Both the key and photographs of the final mind map will be placed in your science portfolio.

## FORCES AND MOTION MIND MAP KEY

#	TERM	IMAGE - WHAT IMAGE DID YOU CHOOSE?.	INCLUDE A DEFINITION IN YOUR OWN WORDS. HOW DOES THE IMAGE CONNECT TO THE TERM? ANSWER IN A WAY THAT SHOWS YOUR UNDERSTANDING. EXPLAIN HOW YOUR TERM CONNECTS WITH OTHER TERMS.
1	inertia		
2	motion	runner	Motion is when something moves from one place to another. I chose to use a picture of a runner because runners have to move in order to move from one place to another. This connects to Newton's Laws because the laws predict motion. Weight also connects to motion because the more weight an object has the harder it is for it to move.
3	acceleration		
4	force		
5	net force		
6	velocity		
7	static friction		
8	rolling friction		
9	sliding Friction		
10	gravity		
11	mass		
12	Newton's Three Laws		
13	conservation of momentum		
14	weight		
15	speed		
16	vector		
17	electromagnetic force		

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# MIND MAP RUBRIC

CATEGORY	EXCEEDS (4)	MEETS (3)	PROGRESSING (2)	DOES NOT MEET (1)
<b>ILLUSTRATIONS</b>	Contains all criteria of a "3" and...contains additional images that are beautifully drawn	Labeled, accurate and hand drawn, connects to terms/concepts, shows a solid understanding	Mostly accurate, most images connect to term/concepts, shows some understanding	Inaccurate and incomplete
<b>KEY</b>	Contains all criteria of a "3" and explanation shows understanding beyond what was taught in class	Images and connections are explained and show a solid understanding of the terms/concepts	Most images and connections are explained and show some understanding of the terms/concepts	More explanation is needed. There is minimal evidence of understanding
<b>CONNECTIONS</b>	Contains all criteria of a "3" and many connections are made in a creative manner	Arrows and other creative symbols are used to show multiple connections.	Some connections are made	Few connections are made
<b>APPEARANCE</b>	Contains all criteria of a "3" and great symbolism and detail are used	Minimal white space, colorful backgrounds, illustrations, text, visually appealing	Some white space, color is used in portions of the background, more craftsmanship is needed	Work is incomplete, more craftsmanship is needed, more color is needed
<b>CONVENTIONS</b>	Is error free	Easy to read, neat, correct spelling and grammar	Easy two read, more than three errors in spelling and grammar	Difficult to read, many errors in spelling and grammar

