



*Science Appetizers
Serving Grade 8*



TM

*The Science Buffet*TM

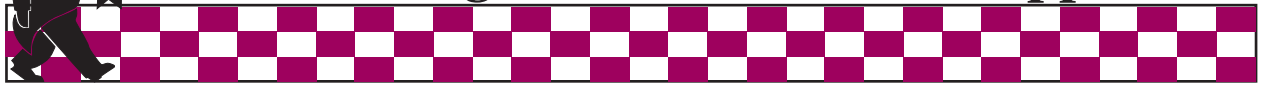
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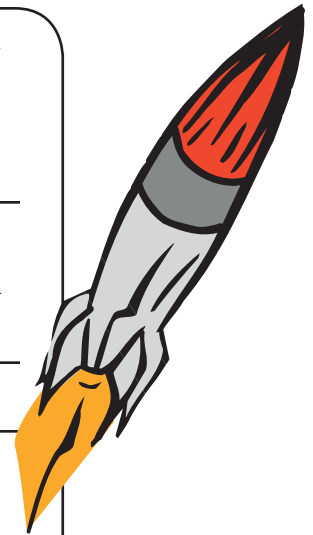
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8.7 A Science Concepts: Changes in an Object's Motion
Newton's Laws of Motion

Law	Motion
1st	Article at rest stays at rest unless worked upon by an outside force. An article in motion stays in motion until moved upon by outside force.
2nd	Force = mass x acceleration
3rd	For every action there is an equal and opposite reaction



8.7 A Science Concepts: Changes in an Object's Motion

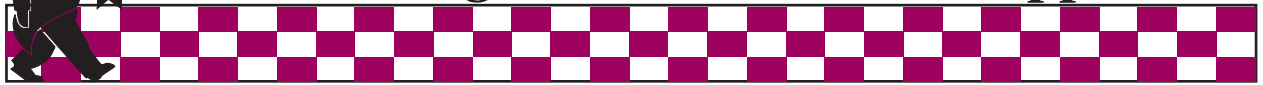
One Apollo crew was quoted as saying, "We would like to thank the person who made this trip possible... Sir Isaac Newton." Which of Newton's laws were they referring to in this statement?

- A first
- B second
- C third
- D all of the laws

8.7 A Science Concepts: Changes in an Object's Motion

The word inertia means "idle" or "lazy." The larger the object, the more inertia it has. Which law would deal with inertia?

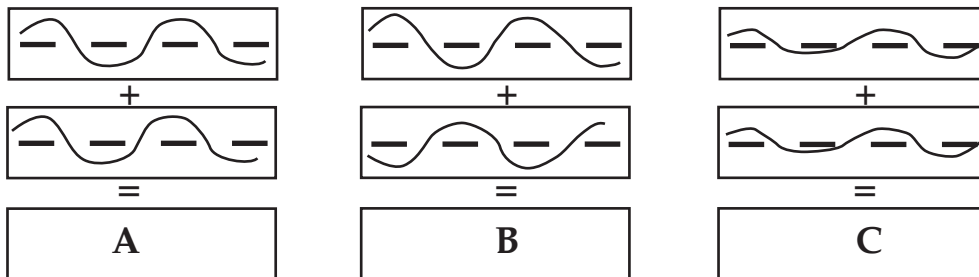
- F first
- G second
- H third
- J none of the laws



8.7 B Science Concepts: Waves

Diagram A shows constructive interference. Constructive interference occurs when 2 crests meet and form one crest of equal height of the two meeting waves. This wave will equal the sum of the amplitudes of the 2 crests.

Diagram B shows destructive interference. Destructive interference occurs when 2 waves of different crest heights meet and cancel each other out.



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8.7 B Science Concepts: Waves

If you were to express diagram A in mathematical terms, which of the following would best fit?

- A $+10 - 10 = 0$
- B $+10 + 10 = 20$
- C $-10 - 10 = 0$
- D It can't be done mathematically.

8.7 B Science Concepts: Waves

What would be a practical use of the knowledge of destructive and constructive waves?

- F building theaters
- G designing ear protectors
- H protecting factory workers
- J all of the above



8.9 C Scientific Processes: Formulas and Equations

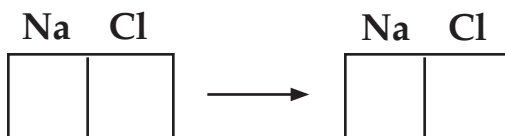


Na	O	H
1	1	1

Na	O	H
1	1	1

Tori noticed if she used boxes for each element on both sides of the equation, then tallied each atom, she could see quickly that equations are balanced.

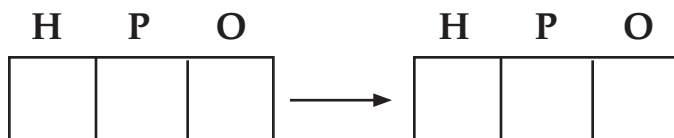
8.9 C Scientific Processes: Formulas and Equations



How many sodium atoms should be in each sodium box?

- A 1
- B 2
- C 3
- D 4

8.9 C Scientific Processes: Formulas and Equations



How many hydrogen atoms on each side?

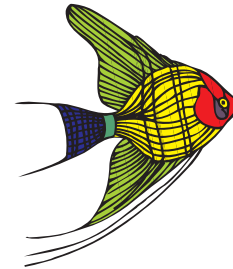
- F 1
- G 2
- H 3
- J 4



8.11 C Science Concepts: Genetic Combinations

This Punnett Square shows the possible results of crossing a pure silver angel fish and a pure marble angel fish.

		Silver	
		S	S
Marble	M	MS	MS
	S	SS	SS



8.11 C Science Concepts: Genetic Combinations

What are the chances of having a marble offspring?

- A 0%
- B 25%
- C 50%
- D 100%

8.11 C Science Concepts: Genetic Combinations

If these angel fish had 2 marble offspring, what are the chances of having another marble offspring?

- F 0%
- G 50%
- H 75%
- J 100%