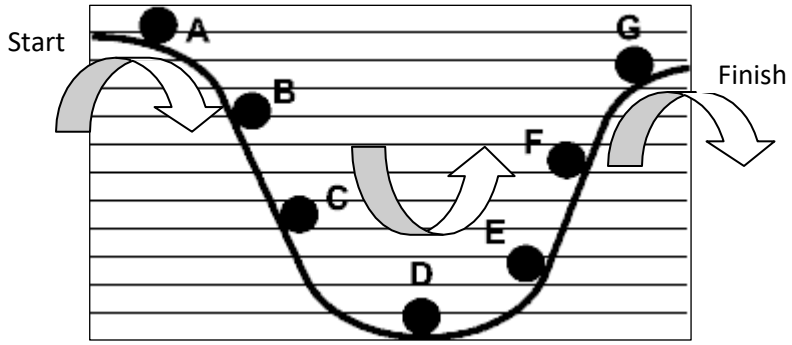
NAME _____

Kinetic VS Potential Energy Practice

Part 1: This graph shows a ball rolling from A to G.



1. Which letter shows the ball when it has the maximum kinetic energy? _____
2. Which letter shows the ball when it has the maximum potential energy? _____
3. Which letter shows the ball when it has the least potential energy? _____
4. Which letter shows the ball when it has the least kinetic energy? _____
5. Which letter shows the ball when it has just a little more kinetic energy than A? _____
6. Which letter shows the ball when it has just a little more potential energy than letter C? _____
7. Which letter shows the ball when it has just a little less potential energy than letter F? _____
8. Which letter shows the ball when it has just a little more kinetic energy than letter G? _____
9. Which letter shows the ball when it has just a little less kinetic energy than letter D? _____
10. Which letter shows the ball when it has just a little less potential energy than letter C? _____

11. Which sequence correctly shows a *resulting increase in potential energy*?

A. C, D, E, F
B. B, F, E, C
C. D, E, B, F
D. A, G, F, C

12. Which sequence correctly shows a *resulting increase in kinetic energy*?

A. E, F, B, G
B. B, F, E, C
C. D, E, B, F
D. A, B, C, D

13. Which sequence correctly shows a *resulting decrease in kinetic energy*?

A. E, F, B, G
B. B, F, E, C
C. D, E, F, G
D. A, G, F, C

14. Which sequence correctly shows a *resulting decrease in potential energy*?

A. E, F, B, G
B. A, B, C, D
C. D, E, B, F
D. A, G, F, C

Part 2: Determine whether the objects in the problems have kinetic or potential energy.

1. You serve a volleyball with a mass of 2.1 kg. The ball leaves your hand with a speed of 30 m/s. The ball has _____ energy.

2. A baby carriage is sitting at the top of a hill that is 21 m high. The carriage with the baby weighs 12 N. The carriage has _____ energy.

3. A car is traveling with a velocity of 40 m/s and has a mass of 1120 kg. The car has _____ energy.

4. A cinder block is sitting on a platform 20 m high. It weighs 79 N. The block has _____energy.

5. There is a bell at the top of a tower that is 45 m high. The bell weighs 190 N. The bell has _____energy.

6. A roller coaster is at the top of a 72 m hill and weighs 966 N. The coaster (at this moment) has _____energy.

NAME KEY

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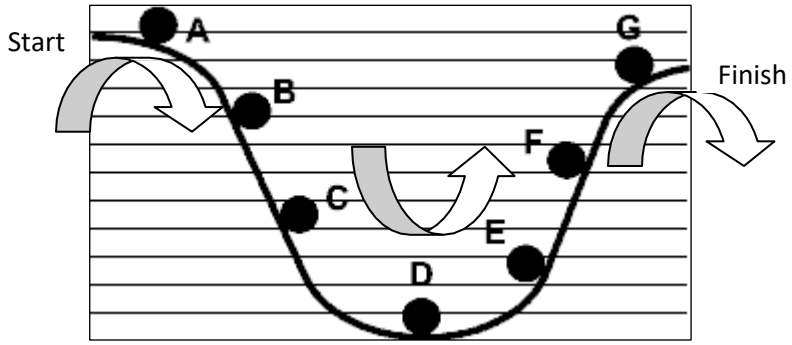

1. Which letter shows the ball when it has the maximum kinetic energy? D
2. Which letter shows the ball when it has the maximum potential energy? A
3. Which letter shows the ball when it has the least potential energy? D
4. Which letter shows the ball when it has the least kinetic energy? A
5. Which letter shows the ball when it has just a little more kinetic energy than A? G
6. Which letter shows the ball when it has just a little more potential energy than letter C? F
7. Which letter shows the ball when it has just a little less potential energy than letter F? C
8. Which letter shows the ball when it has just a little more kinetic energy than letter G? B
9. Which letter shows the ball when it has just a little less kinetic energy than letter D? E
10. Which letter shows the ball when it has just a little less potential energy than letter C? E

11. Which sequence correctly shows a *resulting increase in potential energy*?

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C. D, E, B, F
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Part 2: Determine whether the objects in the problems have kinetic or potential energy.

1. You serve a volleyball with a mass of 2.1 kg. The ball leaves your hand with a speed of 30 m/s. The ball has ___KINETIC___ energy.

2. A baby carriage is sitting at the top of a hill that is 21 m high. The carriage with the baby weighs 12 N. The carriage has _POTENTIAL_ energy.

3. A car is traveling with a velocity of 40 m/s and has a mass of 1120 kg. The car has __KINETIC__ energy.

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