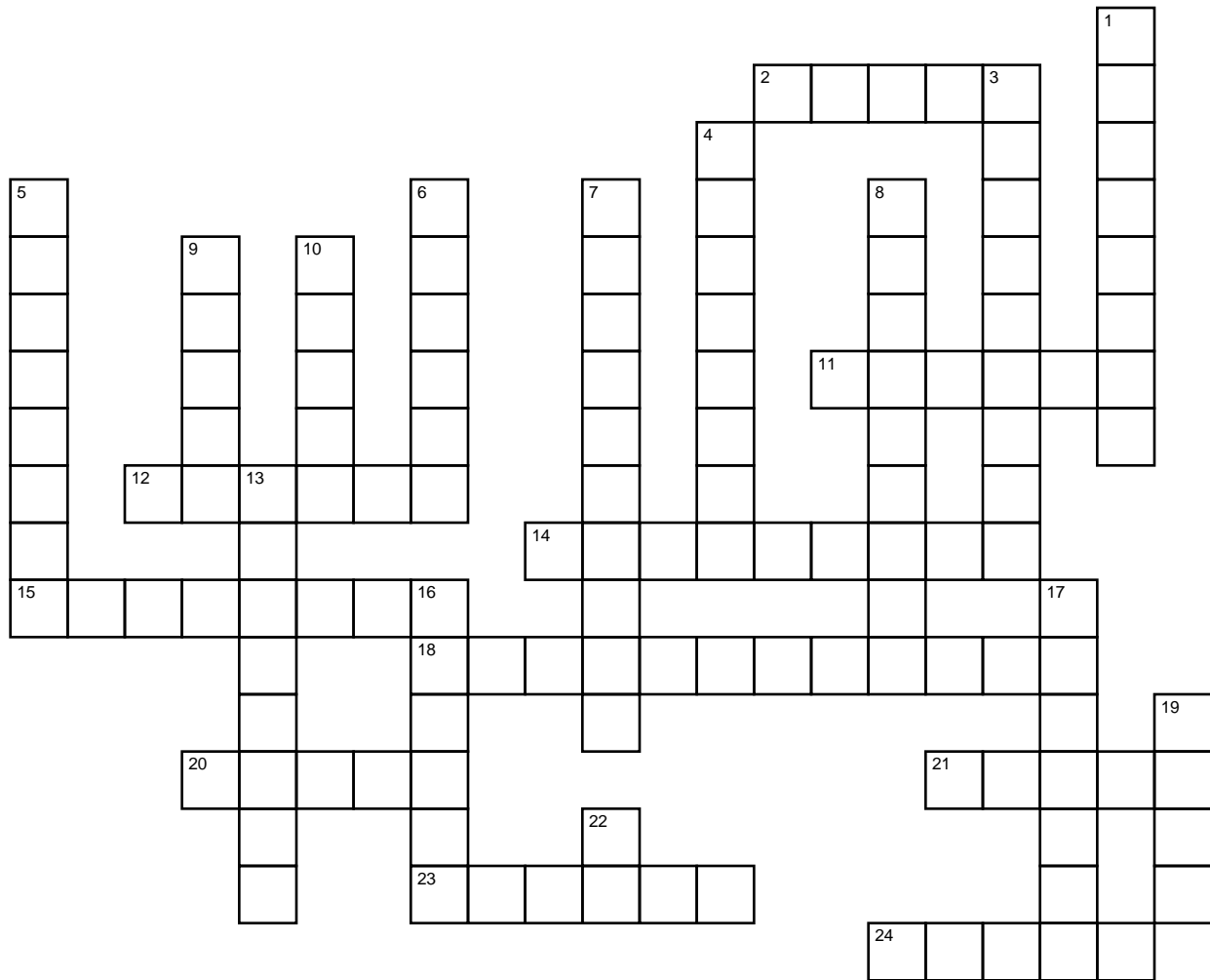


Chapter 6: Newton's Laws of Motion

Physical Science: Energy

Name _____ Period _____



Across

2. Newton's ____ Law of Motion deals with action and reaction forces.
11. When 2 objects collide, they exert equal and opposite forces on each other, but the ____ of the forces may not be the same.
12. Because they have direction, force and acceleration are ____ quantities.
14. Acceleration is ____ proportional to mass.
15. The mass of an object x its velocity is ____.
18. The result of unbalanced forces is ____.
20. Forces always occur in ____.
21. Acceleration is directly proportional to ____.
23. "The acceleration caused by a net force is proportional to force and inversely proportional to mass" is a statement of Newton's ____ Law of Motion.
24. Action and reaction forces are always ____ in strength.

Down

1. Momentum is the mass of an object x its ____.
3. The equation for Newton's Second Law of Motion states that acceleration = force ____ mass.
4. "Every action force creates a reaction force that is equal in strength and ____ in direction"
5. 1 newton is the force it takes to accelerate a 1 ____ mass by 1 m/s/s.
6. The larger the force, the ____ the acceleration.
7. Changes in motion come from ____ forces.
8. Action and reaction forces don't cancel each other out because they act on ____ objects.
9. Motion can only change only through the action of a ____.
10. The Law of Inertia is another name for Newton's ____ Law of Motion

Down

13. The Law of Conservation of Momentum states that, in the absence of outside forces (like friction), the total amount of momentum is ____.
16. Two colliding objects may decelerate at different rates because they have different ____, NOT because the forces are different!
17. The property of an object that resists changes in motion is ____.
19. When the net force is ____, objects at rest stay at rest and objects in motion keep moving with the same speed and direction.
22. If the net force is zero, there will be ____ acceleration.