Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**18.3 Directed Reading**

**Section: Momentum**

**MOMENTUM, MASS, AND VELOCITY**

**\_\_\_1.** What is the product of an object’s mass and velocity?

**a.** its inertia **b.** its momentum **c.** its weight **d.** its motion

**THE LAW OF CONSERVATION OF MOMENTUM**

**\_\_\_2.** What happens to momentum when two billiard balls collide?

**a.** It stays the same. **b.** It decreases. **c.** It increases. **d.** It disappears.

**Objects Sticking Together**

**\_\_\_3.** What happens to momentum when football players combine in a tackle?

**a.** The momentum of the players stays the same. **c.** The momentum of the players decreases.

**b.** The momentum of the players varies. **d.** The momentum of the players increases.

**Objects Bouncing Off Each Other**

**\_\_\_4.** What happens to momentum when objects like bowling pins bounce off each other?

**a.** Total momentum decreases. **c.** Nobody knows for sure.

**b.** Total momentum increases. **d.** Total momentum remains the same.

**Conservation of Momentum and Newton’s Third Law**

**+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++**

**a.** action force **b.** reaction force **c.** momentum conservation

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**\_\_\_5.** explained by Newton’s third law

**\_\_\_6.** gives momentum to a ball at rest

**\_\_\_7.** reduces momentum of a cue ball

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**LAB: Finger Momentum**

**\_\_\_8.** What happens when a bowling ball bounces off a rubber ball?

**a.** The bowling ball and rubber ball both go in the direction of the bowling ball.

**b.** The bowling ball and rubber ball both go in the direction of the rubber ball.

**c.** The bowling ball and rubber ball go in the opposite directions.

**d.** The bowling ball and rubber ball both stop moving.

**\_\_\_9.** What happens to when a bowling ball bounces off a golf ball?

**a.** The bowling ball and golf ball both go in the direction of the bowling ball.

**b.** The bowling ball and golf ball both go in the direction of the rubber ball.

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**\_\_\_10.** What happens when a rubber ball bounces off a golf ball?

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