Refaa School G4 **Science** Ms. Arwa Al Mussabi

Book Unit 1 Lesson 3 **Energy Transfer in Collisions** page 48-52

ST name: ..... G 4 \ .....

Q1:Connect the term to its meaning:

1-Occurs when two or more objects hit each other with a force.

2- It's the movement of energy from one object to another.

3- Energy cannot created or destroyed. It can only change form.

Energy Transfer

Conservation of Energy

Collision

Q2: Choose correct type of energy to solve this statement:

1- Is transformed or transferred; it cannot be made or destroyed

A- Energy B- Momentum

2-Measure how easy or difficult to stop a moving object.

A-Energy B-Inertia C-Momentum D- Collision

3-The collision of two marbles can cause the ..... of both marbles to change.

A-Energy B-Motion

4- It can protect people on cars during accident.

a- Seat belt b- Wheels c- Car doors

5-Which is *not an example of a collision* causing energy transfer and change in motion?

A- a bat strikes a baseball B- a catcher catches a baseball

C-a baseball hits the ground D- a baseball flies through the air

6-During a collision, some energy can be transferred into ..... or sound.

A-Force B- Heat C-Electricity D-Conservation

7- Friction during a collision causes some kinetic energy to be changed into.....

A- Heat B- chemical energy

C- potential energy D-Electricity

LIVEWORKSHEETS



8-Which describes a change that will occur in the collision here?

A-Kinetic energy will be transferred from the nail to the hammer, causing the hammer to move.

B-Kinetic energy will be transferred from the hammer to the nail, causing the nail to move.

C-Potential energy will be transferred from the nail to the hammer, causing no change in motion.

D- Kinetic energy will transform into light energy and no change in motion will occur.

9-In collision object with greater momentum will move an object with:

A-Same momentum B-Big momentum

C-Less momentum D- Nothing happen

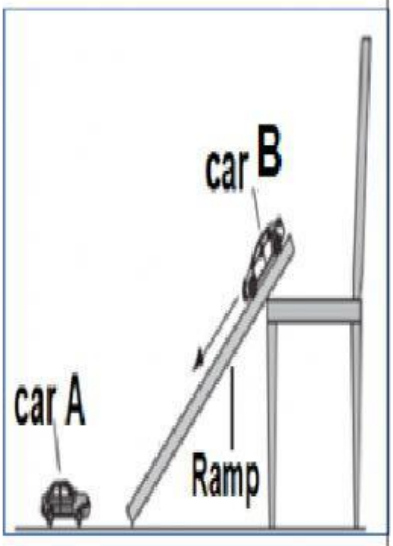
10-In Elastic Collision No loss of ..... energy during collision.

A-Potential B- Kinetic C-Momentum D-Light

11- In collision kinetic energy is a-Transformed b- Destroy into heat and sound.

- Rashed built a ramp. He put car A at the bottom of ramp and released car B from top of ramp.

صمم راشد منحدر مثل الصورة و وضع السيارة A اسفل المنحدر بينما السيارة B في الأعلى, وعند تحرك السيارة B لاحظ عدة أمور حدثت, اختر صحيح او خطأ



Q A- Choose correct answer:

1-Car A will not move. (True or False)

2-Car B will collide then slow down then stop. (T or F)

3- Rashed will hear collide sound. (True or False)

4- Heat is generated. (True or False)

Q B- Choose correct answer:

Describe 2 energy transfers that happen when car A and car b collide.

1- Some energy is transferred from car B to car A. (True or False)

2-There are no energy transferred. (True or False)

3-Some energy is transferred to the air (heat and sound). (Ture or False)

LIVEWORKSHEETS