

Released Testlet

Science. HS. PS2-3. P

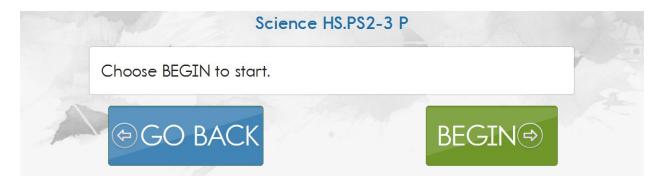
Subject: Science

Grade: High School

Linkage Level: Precursor

Essential Element: Evaluate the effectiveness of safety devices and design a solution that could minimize the force of a collision.

Linkage Level Assessed: Use data to compare the effectiveness of safety devices to determine which best minimizes the force of a collision.



Read about the activity. After you read about the activity, you will follow along with the activity again and answer some questions.







Tomas learns about safety devices. Tomas knows that safety devices lower forces.













Tomas compares safety devices. Tomas wants to protect an egg from breaking.

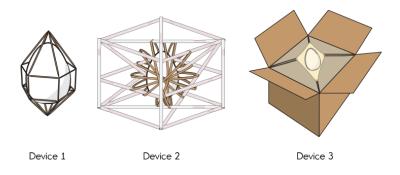








Tomas makes 3 egg safety devices.









Tomas drops the egg safety devices from different heights. Tomas compares the 3 safety devices. Tomas makes a table.

Safety Devices

Device	Safe Drop Height
1	10 feet
2	15 feet
3	18 feet







Tomas compares the 3 safety devices. Tomas makes a table.

Safety Devices

Device	Safe Drop Height	
1	10 feet	
2	15 feet	
3	18 feet	

Which device has the biggest safe drop height?

Device 1

Device 2

Device 3







Tomas compares the 3 safety devices. Tomas makes a table.

Safety Devices

Device	Safe Drop Height		
1	10 feet		
2	15 feet		
3	18 feet		

Which device lowers the force on the egg the most?

Device 1

Device 2

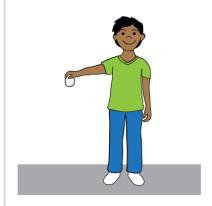
Device 3







Tomas drops the egg onto 3 different materials. Tomas wants to keep the egg safe.

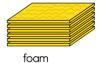








Tomas drops the egg onto 3 different materials. Tomas has foam. Tomas has tissues. Tomas has cardboard. Tomas keeps the thickness of the materials the same.













Tomas drops the egg onto each of the materials from the same height.









Tomas drops the egg onto each of the materials. Tomas checks to see if the egg is safe. Tomas makes a table.

Safety Materials

Material	Safety
Foam	Safe
Tissue	Not Safe
Cardboard	Not Safe

Which material protects the egg the best?

foam

tissue

cardboard







