



INTERNATIONAL
STEM OLYMPIAD
GRAND FINAL GERMANY

GRADES 6-7-8

POPULAR SCIENCE



1 -



When a hammer strikes a material, it can break the material. It can also permanently deform the material and then recoil from the material. How does an elastic material withstand the force from a hammer without breaking or permanently deforming?

- A) B) C) D)
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2 -



Which of the following statements is NOT correct regarding how guitar strings work?

- A) B) C) D)
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3 -



Why, after shaking, do large Brazil nuts usually go to the top of a mixture with smaller elements?

- A) B) C) D)

4 -



When a rock is thrown into the water, circular waves are created. The highest point of a wave is called the crest and the lowest point is called the trough.

Why are the wave crests lower as the circle spreads further out?

- A) B) C) D)
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5 -

Materials that we use in the future need to be climate friendly and use resources conservatively. Further, they should not compete with food crops for fields and should be biodegradable.

Which of the following is NOT an example of such a material?

- A) B) C) D)