

Effects of a force

STUDENT BOOK pp. 70, 355, 369

1. True or false?

- a) The words *force* and *energy* are synonyms.
- b) Force can modify the movement of a body.
- c) Force can change the shape of a body.
- d) Force can change the quantity of matter in a body.
- e) Compressive force is force pressing on a body.
- f) Tensile force cannot cause a body to move.

2. Match each type of force with its effect.

Type of force	Effect
a) Tension	1. Makes a body smaller under the effect of compressive forces.
b) Shearing	2. Makes a body longer under the effect of tensile forces.
c) Compression	3. Curves a body under the effect of several forces usually acting perpendicular to the body.
d) Bending	4. Occurs when two forces are exerted in a rotating movement in opposite directions.
e) Torsion	5. Occurs when two forces are exerted at almost the same spot in parallel but opposite directions.

3. The effects of a force may cause permanent deformation, elastic deformation or fracture. Explain the difference between these three consequences and give an example for each one.
