

FORCES AND MACHINES



1 Use the words to complete the text about forces.

temporarily - move - changes - break - direction - shape - permanently

Forces cause _____. They can make objects change _____ or break.

Some objects change their shape _____ and do not return to their initial shape.

Other objects change their shape _____ and return to their initial shape. Rigid objects _____ when sufficient force is applied.

Forces can also make objects start to _____, change _____ or stop.

2 Solve the problem.

A motorist drives 100 kilometres in one hour. How many kilometres will he drive in three hours if he maintains the same speed?

3 Calculate the speeds. Then, answer the questions.

a. Andrea drives 400 km to the seaside. It takes her five hours.

What is her average speed? _____

b. David takes two hours to drive to his dad's house. The distance is 180 km.

What is his average speed? _____

• How can they know their speed at a particular moment?

• What two forces slow down moving cars?

f _____ a _____ r _____





4 Read these definitions of machine components and write the names.

cover - mechanism - sensors - engine - gears - springs

- These allow a machine to detect information: _____
- This produces movement by transforming chemical energy into mechanical energy: _____
- This outer part protects the machine: _____
- Several operating parts that work together: _____
- These are wheels with teeth: _____
- These are coils that store and release energy: _____

5 Cross out (x) the odd one out. Then, write *modern structure*, *home*, *free time* or *communication*.

- animation exercise machine refrigerator motion gaming _____
- tower telephone the Internet social networks _____
- pillar beam foundation animation _____
- dishwasher bridge thermostat refrigerator _____

6 Unscramble the words and write the names of eight machine components. Then, tick (✓) the ones that may work together in a mechanism.

- | | | | |
|------------------|--------------------------|---------------------|--------------------------|
| a. ehwle: _____ | <input type="checkbox"/> | e. cetsururt: _____ | <input type="checkbox"/> |
| b. torom: _____ | <input type="checkbox"/> | f. nicah: _____ | <input type="checkbox"/> |
| c. xela: _____ | <input type="checkbox"/> | g. tidarcino: _____ | <input type="checkbox"/> |
| d. neesrc: _____ | <input type="checkbox"/> | h. revle: _____ | <input type="checkbox"/> |

7 Circle the advances in modern life and classify them.

bridge radio exercise machine dish washer electronic mail animation tower dual flush toilet

modern structure	home	free time	communication