## Worksheet A

Use the equation, **work done = force x distance,** to complete the table.

Use the completed examples to help if you get stuck.

Answer the questions in full, showing all of your workings.

| | |
|---|---|
| Force = 500 N<br>Distance = 3 m<br><br>**W = 1 500 J** | Force = 36 N<br>Distance = 2 m<br><br>**W = 72 J** |
| Force = 15 N<br>Distance = 0.5 km | Force = 15 N<br>Distance = 3 cm |
| Force = 10 N<br>Distance = 25 m<br><br>**W = 250 J** | Force = 2 000 N<br>Distance = 100 m<br><br>**W = 200 000 J** |
| Force = 360 N<br>Distance = 2 m | Force = 2.5 N<br>Distance = 12 cm<br><br>**W = 0.3 J** |
| Force = 2 kN<br>Distance = 0.5 km | Force = 17.5 N<br>Distance = 15 m |

## Worksheet B

Use the equation, **work done = force x distance,** to complete the table.

Use the completed examples to help if you get stuck.

Answer the questions in full, showing all of your workings.

| | |
|---|---|
| Force = 17.5 N<br>Distance = 15 m<br><br>**W = 262.5 J** | Force = 2 kN<br>Distance = 0.5 km<br><br>**W = 1 000 000 J** |
| Force = 15 N<br>Distance = 3 cm<br><br>**W = 0.45 J** | Force = 500 N<br>Distance = 3 m |
| Force = 36 N<br>Distance = 2 m | Force = 15 N<br>Distance = 0.5 km<br><br>**W = 7 500 J** |
| Force = 10 N<br>Distance = 25 m | Force = 2.5 N<br>Distance = 12 cm |
| Force = 360 N<br>Distance = 2 m<br><br>**W = 720 J** | Force = 2 000 N<br>Distance = 100 m |

## Answers and teaching notes

Students will need to be aware of the units that they should use.
Running the activity:

1. Put the students in pairs and give one student worksheet A and the other worksheet B - they may **not** look at each other's work! The reason for this is that the answers to worksheet A are visible on worksheet B and vice versa.
2. Students then complete the five blank calculations, allow up to 5 minutes.
3. They then check their answers with their partner, correcting the errors using a green pen.

As an extension, ask students which answers would be suitable to convert into kJ and see if they can convert them.

| | |
|---|---|
| Force = 500 N<br>Distance = 3 m | Force = 36 N<br>Distance = 2 m |
| **W = 1 500 J** | **W = 72 J** |
| Force = 15 N<br>Distance = 0.5 km | Force = 15 N<br>Distance = 3 cm |
| **W = 7 500 J** | **W = 0.45 J** |
| Force = 10 N<br>Distance = 25 m | Force = 2 000 N<br>Distance = 100 m |
| **W = 250 J** | **W = 200 000 J** |
| Force = 360 N<br>Distance = 2 m | Force = 2.5 N<br>Distance = 12 cm |
| **W = 720 J** | **W = 0.3 J** |
| Force = 2 kN<br>Distance = 0.5 km | Force = 17.5 N<br>Distance = 15 m |
| **W = 1 000 000 J** | **W = 262.5 J** |