



Section 1 Vocabulary

A. Read the text and look at the diagrams.

The human body has a lot of **energy** in it and it can exert a lot of **force** to move a **load** – to push things, to pull things, to lift things and to turn things. But sometimes the force required to do something is greater than the energy a human body can provide. When this happens we need to use a **tool** to move the load. A tool increases the distance between the force and the load. There is a simple rule of physics – if you increase the distance between the force and the load, you can reduce the force required to move it. To put it another way:

SMALL FORCE + LARGE DISTANCE = LARGE FORCE

For example, a **wrench** has a long **handle**. This increases the distance between the force (from a human hand) and the load (the bolt), so we can tighten a bolt with only human energy. This is an example of a **lever**. Other simple tools are:

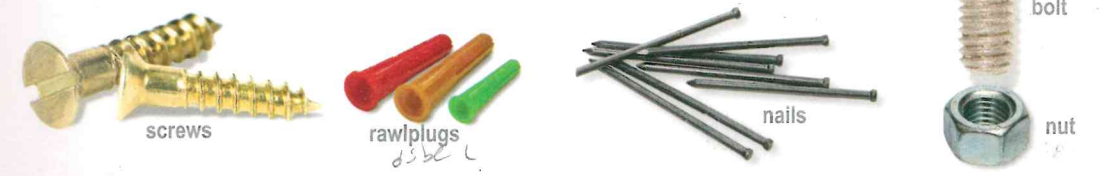
- the **pulley** – this increases the length of the rope and so increases the force we can **exert** by pulling on it, so we can lift a heavy crate from a ship
- the **inclined plane** – this increases the distance that the load has to travel and so decreases the force we need to exert to move it, so we can push a car up a ramp
- the **gear wheel and axle** – the gear wheel turns through a greater distance than the axle but moves the axle with more force – so we can pull our own weight up a steep hill on a bicycle

*kuilommet
korcasok*

konahfar



B. Match each tool to one or more of the fixings by checking the correct column below.



	Screws	Rawlplugs	Nails	Nuts and bolts
screwdriver				
hammer				
pliers				
drill				
wrench				

C. Choose verbs and nouns from the boxes to make sentences.

1. screwdriver It is used for putting in and taking out screws.
2. hammer _____
3. pliers _____
4. drill _____
5. wrench _____

Verbs	Nouns
put in	nails
take out	screws
hold	bolts
tighten	holes
loosen	things
make	



Section 2 Reading

Contents

Check the contents carefully before you begin construction; if an item is missing, contact the help desk on 01234 567890.

- 4 bolts
- 4 nuts
- 4 screws – Posidrive head
- 4 rawlplugs
- 1 metal shelf
- 2 metal brackets

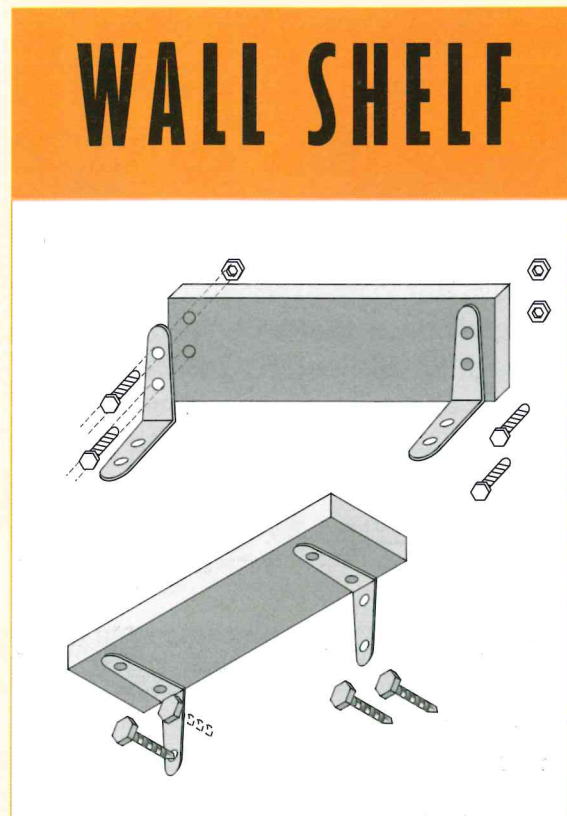
Tools

You will need the following tools:

- a wrench
- a pair of pliers
- a screwdriver – Posidrive
- a drill
- an 11-mm drill bit
- a hammer
- a spirit level *سـمـكـة*
- a pencil

Instructions

- 1 Attach the left-hand bracket to the shelf with the nuts and bolts provided.
- 2 Repeat the procedure for the right-hand bracket.
- 3 Place the shelf against the wall. Use a spirit level *سـمـكـة* to check alignment.
- 4 Mark the wall through the holes in the brackets.
- 5 Drill four holes with an 11-mm drill bit.
- 6 Plug each hole with a rawlplug. Use a hammer gently to ensure that the rawlplug is flush with the surface of the wall.
- 7 Replace the shelf and screw the shelf to the wall.



A. Choose the best answer in each case.

1. How do you attach the brackets to the shelf?
 - a. with the nuts
 - b. with the screws
 - c. with the bolts
 - d. with the nuts and bolts
2. *Place* in this context means:
 - a. put in position
 - b. location
 - c. attach
 - d. try
3. How do you *mark the wall*?
 - a. with the drill
 - b. with the screwdriver
 - c. with the pencil
 - d. with the hammer
4. *Plug* in this case means:
 - a. cover
 - b. connect
 - c. make
 - d. put in
5. When the rawlplug is *flush* with the surface of the wall:
 - a. you will not be able to see it
 - b. it will stick out slightly
 - c. it will not stick out at all
 - d. it will stick out a lot

B. Study the table. Compare the formal and informal sentences.

Formal English	Informal English (with phrasal verbs)
The instructions help you construct the shelf correctly.	The instructions help you put the shelf together properly.
Attach the brackets to the shelf.	Put the brackets on the shelf.
Plug the holes with rawlplugs.	Put rawlplugs in the holes.
Place the shelf against the wall.	Put the shelf up against the wall.
Replace the shelf.	Put the shelf back .

C. Complete each sentence so that both sentences have the same meaning.

1. I constructed the shelf.
I put _____.
2. I attached _____.
I put the shelf on the wall.
3. I plugged the holes with filler.
I _____.

4. I _____.
I put the shelf up against the wall.
5. I _____ the things on the shelf.
I put _____.



Section 3 Listening

A. Listen and complete the summary of the reading text in Section 2. Write one word in each space.

To construct this shelf, you will need the following:

- a _____ for tightening the bolts
- a pair of pliers for holding the _____
- a drill with an 11-mm drill _____ for making holes in the wall
- a screwdriver for _____ in the screws
- a spirit _____ for checking the alignment



B. Listen to the advice about providing construction details with furniture. How many pieces of advice does the man give?



C. Listen again and complete the summary. Write one word or phrase in each space.

Some people can't read _____ drawings and others can't follow _____ instructions. Therefore, good _____ details should have both. In addition, instructions should be _____ – diagrams and written details. Finally, there should be actual-size drawings of each type of _____.