

43 Subordinate clauses of result and purpose

A Sample sentences

Benton have defined quality standards (in order) to meet minimum product specifications.
Last year Markham introduced new quality standards so (that) they detected defective products before completion.

Mansell have initiated a quality review programme so as to meet customer expectations.

We sample and monitor all processes so that customers' needs are exceeded.

For zero defects to be achieved, we will have to introduce tighter prevention controls.

B Form

Clauses of result and purpose are subordinate clauses. There are three possible constructions:

1 *(in order/so as) to* + infinitive

Benton have defined quality control standards (in order) to meet minimum product specifications.

2 a subordinating conjunction followed by a verb

We sample and monitor all processes so that customer needs are exceeded. (purpose)

Last year Markham introduced new quality standards so (that) they detected defective products before completion. (result)

3 *for* + noun followed by an infinitive + *to*

For zero defects to be achieved, we will have to introduce tighter prevention controls.

(= *so that zero defects can be achieved, we ...*)

The main subordinating conjunctions are: in order that • so that

Before the infinitive + *to* you can put: for • in order (to) • so as (to)

Note the negative forms:

So as not to pay for unnecessary reworking, we sample all raw materials.

In order not to lose customers, we have a policy of continuous process improvement.

C Uses

Clauses of purpose answer the question *why* or *what ... for*. They present the purpose of the information in the main clause.

Clauses of result also answer the question *why* or *what ... for*. In contrast to *clauses of purpose*, they typically look to the past to see what result an action achieved.

Electricity is usually transmitted at the highest voltages possible to minimize energy losses. (purpose)

We tied together the electric utilities into large systems so that power was exchanged. (result)

Now look at the differences between the constructions in *clauses of purpose* and *result*.

1 We use *to*, *in order to* and *so as to* + infinitive when the subject of both clauses is the same.

Energy is generated from different fuels in order to avoid reliance on one source.

2 We use *so that* or *in order that* where the subject of the clauses is different.

Electricity producers are able to exchange power so that one utility can assist another

3 We use *so that* + clause for *clauses of result*.

These electric utilities were then combined into larger systems so that power was exchanged.

Notes:

The following sentences are wrong:

We use coal for make energy. (to make)

We changed to gas for to make energy. (in order to make)

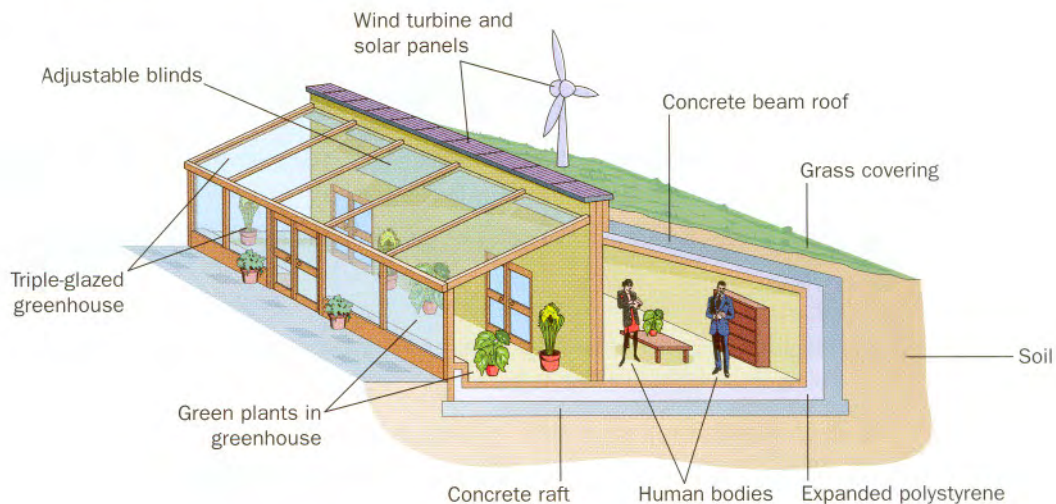
We started producing hydroelectric power for making cleaner energy. (to make)

TASKS

1 Rewrite the following sentences using the words in brackets.

- 1 They introduced computer-guided robots because they wanted to increase efficiency. (in order to).
- 2 Close the valve. That way the system won't overheat. (so that)
- 3 Scientists are carrying out research. They want to find a cure for AIDS. (so as to)
- 4 Circuit breakers have been installed because they don't want the system to overload. (so that ... not)
- 5 The system is sealed. They want to stop water and dust getting in. (in order to)
- 6 He is taking anti-malarial drugs. He doesn't want to get malaria. (so that)

2 An architect is explaining the features of an ecological house to some interested builders. Complete the following description choosing phrases from the box.



heat doesn't escape • use too much power within the house
 the temperature can be controlled • produce power for the house
 provide insulation • receive the maximum amount of sun
 save energy • purify the air • prevent the loss of heat • be kept dry

As you can see, there are several features in this house that have been designed to (a) _____ but still provide a comfortable living area. On one side you can see a large glazed greenhouse that faces south so as to (b) _____. It is in fact triple glazed in order to (c) _____. Inside this greenhouse, we would recommend plenty of green plants to (d) _____. Of course it can get quite hot on summer days so adjustable blinds are fitted on all the glass windows so that (e) _____. Wind turbines and solar panels are

fitted to the roof in order to (f) _____. For the house to (g) _____, the foundations consist of a concrete raft. The inner layer is made of expanded polystyrene which is used to (h) _____. The roof comprises concrete beams with a thick soil covering and grass so that (i) _____. Of course, there are also people in the house to generate a certain amount of heat too. In addition, so as not to (j) _____, low energy equipment and lighting are used.