Getting from A to B

Reading 1

Labelling a diagram

Read the passage carefully. Complete labels (1–7) on the diagram. Choose NO MORE THAN TWO WORDS AND/OR A NUMBER from the passage for each answer.

The Boeing 787

The Boeing 787 'Dreamliner' has been described as the airliner of the future. We look at the technology that makes it different

Until now, airliner fuselages have been made of aluminium sheets. Large aircraft can have 1,500 of these sheets with between 40,000 and 50,000 metal fasteners. The 787 is the first airliner to be built with a one-piece fuselage made from a special material called 'composite'. Not only does this make the airliner quicker and easier to build, but it also makes it a lot lighter. The advantage of this weight reduction is that the 787 uses 20 percent less fuel than other airliners of a similar size, which makes it much more environmentally friendly. The reduced weight also means that the Boeing 787 can fly further than many other airliners of a similar size, carrying 210 passengers or more up to 15,200 kilometres before refuelling.

Sometimes an airliner needs to change from one type of engine to another. This is a difficult and time-consuming process. The 787 has a revolutionary engine attachment on the wing which means that the engines can be changed in a much shorter time. The case containing the engine is also different from those on other airliners. It has been designed to cut down the noise from the engine, making it less noisy for passengers in the cabin as well as for people on the ground.

In addition to a quieter cabin, passengers will also benefit from windows which are 65 percent larger than those on other airliners, giving them a much better view of the world passing by below them. The windows also have a unique facility which allows passengers or cabin crew to control the amount of light that enters them. This is thanks to a liquid in the window which reacts to an electric current. When a passenger or cabin crew member presses a button, the current causes a chemical reaction in the window which darkens the liquid.

1 Composite fuselage material is much ..... than traditional aluminium sheets.

2 Composite fuselage material reduces the amount of ..... that the airliner needs.

3 Airliner can accommodate at least ..... .



4 Engineers can fit a new engine in a ..... than it takes on other airliners.

5 A special engine case reduces ..... .

6 The size of the windows has increased by ..... .

7 Window glass can be made darker by passing an ..... through them.

LIVEWORKSHEETS