**Research context:** Aerospace Technologies

**Theme:** Large passenger aircraft

During the past 20 years there has been a move towards larger passenger aircraft. The European Aeronautic Defence and Space Company (EADS), owner of the Airbus group of aircraft constructors, has recently produced the Airbus A380, one of the world’s largest passenger aircraft. This has been made possible by the use of a wide range of new materials and technical developments.

**1** You are to conduct your research into the development of large passenger aircraft and in

particular the wings of the Airbus A380.

* Investigate the materials used for the construction of wings for passenger aircraft during the past 20 years.
* Familiarise yourselves with the materials used for the construction of the A380 wings.
* Investigate the effects of using the new materials on the aeroplane’s performance and emissions.
* Investigate the reasons for its development.

**2** Research economic costs and benefits of large passenger aircraft by:

* examining the effects on people’s lives of their development
* examining the impact on social and economic development in the UK.

**3** Investigate social and environmental issues related to the research context and theme:

* employment opportunities within the aerospace technologies sector
* effects upon the environment.