

Emergency delivery

Design and build a lander to deliver emergency aid from the air



Suitable for all sections

Natural disasters can leave communities isolated and short of food, water and medical supplies. The RAF has a long history of flying in relief during natural disasters like flooding, famine or earthquakes, some of which are caused by global warming. The C17 Globemaster or A400 Atlas are heavy-lifters that can conduct large air drops, while the C130 Hercules can do air drops in rural areas. But when larger aircraft can't land, helicopters are used and a 'lander' drops aid to the ground. The Chinook is the most used helicopter, as it can carry the biggest weight, while Puma are used where a smaller aircraft can do the job. Between 1983 and 1985 the RAF helped to get 32,000 tonnes of supplies to Ethiopia during a famine – one of the largest operations of its kind.

You will need

- paper (one sheet per person)
- pencils (one per person)
- hard-boiled eggs (one per team)
- string (one piece per team)
- scraps of fabric
- cardboard packaging
- other biodegradable packaging
- scissors (one pair per team)
- glue (one per team)

Instructions

- 1** Before your meeting, ask the young people to bring in recycled materials from the equipment list. Use hard-boiled eggs that can be eaten afterwards, to avoid mess and waste.
- 2** Talk to your section about air disaster relief. Can they think of any examples when it has been used? What made this the best way to provide disaster relief? Share the examples on this page of some historical instances when relief was provided by the RAF.
- 3** Divide everyone into teams to design and make a lander – a small structure that can hold an egg and protect it during landing. They should think about designing it to reduce the impact when the load hits the ground, so the egg doesn't crack.

4 Each team should test their lander by dropping it from different heights to see what happens each time – did the egg crack?

5 Bring the section back together to discuss which features made the most successful landers and how their designs could be improved upon.



Time needed
45 minutes

Badge



The Royal Air Force partners the Scout Air Researcher Activity Badge

Partner



Outcomes

Young people will learn how aviation has supported historical and recent emergency relief efforts and will engineer methods of delivering aid when it's not possible to land in areas that need assistance.

More information

For more badge resources, events and activity sheets visit: scouts.org.uk/raf.

