

Clean Growth

Design a waste free lunch



Project brief

The idea of this project is to introduce a school lunch programme to your school or college. The programme should encourage pupils to use recycled or re-usable packaging for their lunches. Produce a leaflet and/or poster presentation for the school. You will also carry out some tests on reusable packaging to check it's suitable.

Start by testing alternative packaging. You should think about what alternatives might be used to store packed lunches. Then you should carry out some tests to make sure your ideas still keep food fresh, for example: Crisps usually come in a packet that gets thrown away. So why not buy a bigger bag and bring just enough crisps each day in a different container. When you've thought of a few alternatives, carry out a 'sogginess' test. Leave different containers of crisps for a day and see which ones remain crunchy. Make sure you use the same type of crisps in each container. Store all the containers in the same place. Leave a normal packet of crisps for a day as well – this will be your benchmark.

Drinks often come in cans or plastic bottles that also create waste. Find out what sort of cans are best for recycling. You could also tell people how and where to recycle cans. The other alternative is to buy a big bottle and bring just enough for one day in a reusable container. Again, you could carry out a test to make sure your alternative container keeps the drink fizzy.

You should also test your packaging's strength. Packed lunches can often get bashed around in your school bag, but you don't want squashed sandwiches or broken biscuits. Design an experiment to see what happens to your packed lunch when it gets bashed about. Work out a way of simulating how much a packed lunch gets bashed around during a school day. This might include dropping the packed lunch to see if anything gets damaged.

Finally, design a communication campaign to share your top tips with other students for preparing a waste free lunch. You could use a leaflet or poster to share your ideas.

Things to think about

- What sorts of packaging people use at the moment to store their packed lunch?
- How much of it is reusable?
- Which bits of waste from your packed lunch are biodegradable?
- How do you think they will be disposed of?
- Can any packaging be recycled? If so, how and where?

Useful resources

- packagingdigest.com/sustainable-packaging
- trendhunter.com/slideshow/sustainable-food

Health and safety

To avoid any accidents, make sure you stick to the following health and safety guidelines before getting started:

- find out if any of the materials, equipment or methods are hazardous using science.cleapss.org.uk/Resources/Student-Safety-Sheets/
- assess the risks (think about what could go wrong and how serious it might be);
- Ensure you complete this experiment in a food tech room, not a lab. Food that has been handled in a lab should never be consumed.
- decide what you need to do to reduce any risks (such as wearing personal protective equipment, knowing how to deal with emergencies and so on);
- remember, never consume or taste food or drink in the laboratory or which has been opened in the laboratory;
- make sure your teacher agrees with your plan and risk assessment.