

Pirate Paddy's Packed Lunch Problems

Design and Technology | KS1 | Unit Overview

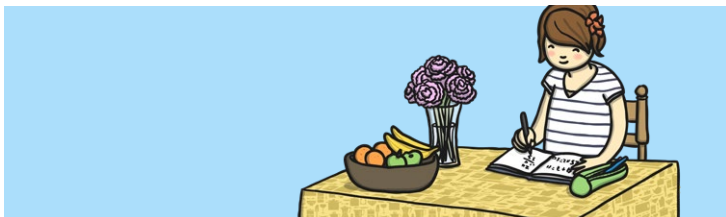
Introduction

The Pirate Paddy's Packed Lunch Problems unit gives children the opportunity to develop their understanding of structures. The exploration of different types of lunch boxes gives children the experience and information to draw on when developing their own ideas. The children create their ideas following the design criteria, given at the beginning of the project, and go on to create models from reclaimed materials. Children gain a basic understanding about how structures can be made stronger, stiffer and more stable. At the end of the unit, children test their product and suggest further improvements.



Health & Safety

When carrying out a risk assessment for this unit, teachers will need to consider the materials, tools and equipment being used. Scissor safety rules should always be followed.



Home Learning

[Make Your Own Treasure Chest:](#) Children are asked to use reclaimed materials to make a treasure chest.

[Pirate Paddy's Iced Biscuits Recipe:](#) Children learn to make their own iced biscuits to give to the pirates for lunch. They are given a simple recipe to follow. As an extra challenge, children can pipe sea themed pictures onto the biscuits.

To look at all the resources in the Pirate Paddy's Packed Lunch Problems unit [click here](#).

To find out more about PlanIt download our [free guide here](#).

Assessment Statements

By the end of this unit...

...all children should be able to:

- recognise the positives about an existing product and any problems;
- draw a simple design;
- with support, build a structure for their lunch box;
- test their own product.

...most children will be able to:

- explore an existing product and describe its problems and positives;
- draw a design and describe it;
- build strong structures;
- test their own product and suggest improvements.

...some children will be able to:

- suggest improvements to existing products;
- add details and special features to their designs e.g. compartments or built-in food storage and be able to say why they have included them;
- use a basic understanding of structures to make their models stable and stiff;
- incorporate the main points listed in the design criteria to their lunch box;
- test their product, evaluate it and make any changes, showing significant improvements when it is retested.

Lesson Breakdown

Resources

1. Who Not Keep the Basket?

Explore and evaluate a range of existing products in the context of evaluating the basket used to transport the pirates' lunch.

- To evaluate a product's ability to do a job well.

Lesson Pack

- Wicker basket with handle



2. Evaluating Lunch Boxes

Explore and evaluate a range of existing products in the context of evaluating existing lunch boxes.

- To investigate and evaluate existing products.

Lesson Pack

- A selection of empty and clean lunch boxes



3. Exploring Materials

Select from and use a wide range of materials according to their characteristics in the context of exploring materials that could be used to make the lunch box.

- To explore different materials and decide which will be useful for making my product.

Design purposeful, functional, appealing products for themselves and other users based on design criteria in the context of designing a new lunch box that can move between the pirate ships.

- To design a new product that meets the design criteria.

Lesson Pack

- Paper
- Cardboard
- Plastic/paper bags
- A variety of different sized and shaped cardboard/plastic boxes and containers (ensure all bags, boxes and containers are clean and empty)



4. Making the Lunch Box

Select from and use a wide range of materials according to their characteristics in the context of selecting and using the correct tools and equipment to make a lunch box.

- To select and use tools and equipment to make a product.

Lesson Pack

- A variety of different sized and shaped cardboard/plastic boxes and containers
- Plastic/paper bags (ensure all bags, boxes and containers are clean and empty)
- Cardboard/paper, foil, clingfilm
- Double sided tape, masking tape, sticky tape, sticky pads
- PVA glue and glue sticks
- String, treasury tags, split pins, paper clips
- Scissors and hole punch



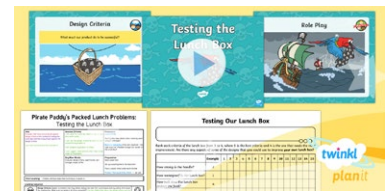
5. Testing the Lunch Box

Explore their ideas and products against design criteria in the context of testing the lunch box and then evaluating it against the design criteria.

- To test a product and then evaluate it.

Lesson Pack

- Washing line rope, plastic sheet, watering cans/sprayers, paper
- Washing line pulley (optional)



6. Improving the Lunch Box

Explore their ideas and products against design criteria in the context of testing the lunch box and then evaluating it against the design criteria.

- To use my evaluations to make improvements to my product and then retest and evaluate it.

Build structures, exploring how they can be made stronger, stiffer and more stable in the context of making improvements to my product.

- To improve my product by making it stronger, stiffer, more stable and more waterproof.

Lesson Pack

- Washing line rope, plastic sheet, watering cans/sprayers, paper
- Washing line pulley (optional)

