

SCIENCE

ACTIVITY SIX: GRUB'S UP!

LINK TO DESIGN AND TECHNOLOGY ACTIVITY 5 AND 6

Learning Objectives:

ALL: Students will know what is needed in a balanced diet

MOST: Students will know some of the problems with transporting food **SOME:** Students will know some of the issues with food contamination

Resources:

- Balanced food plate (there is an example linked to below)
- 4 plastic food bags (make sure it is waterproof)
- Cardboard
- Scissors
- Sellotape/Glue
- Pack of straws
- Dowel rods if possible (though can use straws if they are reinforced with card/sellotape)
- If you can access: Large food saucepans from school kitchens
- My diet worksheet (for extension work)

STARTER:

Ask students to make a list of the food that they are and drank yesterday.

INTRODUCTION:

Introduce the idea of a balanced diet by using a resource such as the Eat Well plate

Discuss the main food groups and how much we need of each of them:

- Fruit and Vegetables
- Complex carbohydrates (eg bread pasta)
- Milk and dairy
- Protein
- Fat and simple sugars (eg sucrose/glucose)

Students should make a Pie Chart of the foods they are yesterday to show which food groups they belong to, similar to the NHS Eat Well plate. (optional – or could be an extension activity at the end of class)

Discuss the rationing of food See: Historical Context 11. Food and Video of soldiers receiving rations

MAIN TASKS

Students are to design a method for carrying a container of stew and some clean water to heat the stew with for the troops on a front line.

Suggest focus on video from link in introduction section and the photo of transporting food. Notice that they will heat it at the trench but will need to carry the food in a sealed container and a big pot of water to heat it up in over an open fire.

Link to properties of matter:

- Liquids flow and take up the shape of the container
- Problems that will be encountered:
- Uneven surface students will need to provide a way of carrying a heavy container over dips and bumps: discuss ideas of rolling across round objects (dowel rods) and carrying with handles (reinforced straws)
- Liquids can spill easily students will need to ensure that container is sealed and a regular shape or it may burst: discuss shapes of barrels/big saucepans

Students to draw a design that will hopefully overcome these odds.

They should then 'build' their container with a tray of resources.

Only add the water at the end.

Give a set time to make it challenging, depending on the class.

Trial the 'food transport containers' over an uneven surface (e.g. wood chip on an adventure playground/hill on a field/objects placed under an opaque plastic sheet).

Extension

The My Diet Worksheet

REVIEW:

Students should evaluate their design and think of any improvements that could be made. Annotating their diagram in another colour (e.g. green to progress to next level)