

Operation Purchasing and Waste Mission Earth Master Chef

Student Outcomes:


Values: The student reflects critically on attitudes and values underlying production and consumption of food (Pursuit of Knowledge, Critical Reflection, 1.6).

Science: The student understands that all living things in the environment are interdependent (Life & Living, 2)

Health & Physical Education: The student demonstrates basic self-management skills in deciding what food to eat and buy at the canteen (Self-management Skills, 2)

English: The student recognises the purpose and benefits of writing a recipe (Writing, 2.2).

Assessment Rubric:



Values		
Describes different types of food.	Explains attitudes and values related to different foods.	Critically comments on current attitudes and values in the production and consumption of food.
Science		
Compares needs of plants and cattle to grow.	Explains plant and cattle growth in terms of greenhouse gas emissions (gge).	Explains impact of our food consumption in terms of gge.
Health & Physical Education		
Describes different types of food in terms of healthy eating.	Discusses links between different types of healthy food and gge.	Demonstrates basic self-management skills in deciding what food to eat.
English		

Describes purposes and audiences of a recipe.	Writes recipe that reflects purpose and audience of this activity.	Explains how the recipe may impact on themselves and others.
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Activity:

Imagine being a Master Chef that could help save the earth system from the greenhouse effect? It does sound strange to eat our way to living better but if everyone learnt a little about the right food to eat we can do it. Would you like to learn about what food is best for you, your family and the earth that is easy to prepare and tastes fantastic? Here is a fun word game to test how many fruit and vegetables you know.

http://www.freshforkids.com.au/wordguess_game/wordguess_game.html

Step 1: What is on my plate?

The first thing you will have to find out about is what makes a 'healthy diet' for you and your family. First you need to write down what you had to eat yesterday for breakfast, lunch and dinner so that you can compare this to the 'official' foods you should be eating.

You will need to say how much of each type of food you had. For example 250 gm steak, ½ cup of rice etc. as this is what is called a 'serve of food' on the information charts.

You need to ask one of your family at home to fill in the list of foods so that you can help them learn about eating well. (access the formatted sheet to collect the data on, see below)

Nutrition scientists, who understand how the body makes use of the food we eat, have agreed that the poster you see here shows the types of foods that should be on your plate.

(PDF of poster of foods on a plate from the Australian National Government website – see below)

Step 2: How much can I eat?

You would have learnt through your science lessons that plants and animals need energy to grow and this includes you and your family. But how much is enough if we are going to think about not wasting our food resources?

Well the Australian National Government website has a useful chart that shows what the Nutrition scientists 'serve of food' recommend.

<http://www.healthyactive.gov.au/internet/healthyactive/Publishing.nsf/Content/recommended-daily-servings>

You will need to use the Compare and Contrast sheet that you filled out for Step 1 to check if the 'serve of food' gets a green tick, an orange tick or a red tick. If we use the colours of the traffic lights it will be easy to see which 'serve of food' you may be

missing out on. After you have given your ticks write down how you would be able to change the red ticks to green ones if you have any.

Note: This means that you will have to compare the 'serve of food' you wrote down on your list with the 'serve of food' the chart shows for that age group. For example if you are 12 then the chart shows you should have at least 3 pieces of fruit a day but your Mum or Dad only need 2.

To save printing off the website to check the amount of food please use the back of the compare and contrast sheet to write down the types of foods and the servings suggested. To make it easy to see how close you came to having the right amount of each food type for you and your other family person do the following

- Give a green tick for the right 'serve of food'
- Give an orange tick for having almost the right 'serve of food'
- Give a red tick if having none of the right 'serve of food'

Extra! Extra!

As an extra activity see how many of the food you eat are in the right season. This chart shows the types of fruit and vegetables are grown locally in Western Australia. Not only are the fruit and vegetables better for you fresh they also save your parents money because they are cheaper in the markets.

(click to access the chart here

http://www.dpi.wa.gov.au/mediaFiles/ls_SeasonalProduce.pdf)

The four seasons are shown as Red for summer, Orange for autumn, Blue for winter and Green for spring. Write the name of the season on your Compare and Contrast sheet. Using these colours put a tick next to the fruit and vegetables on your list. How many were in the right season?

Step 3: Cooking to save greenhouse gases!

Protein is very important to help us develop our muscles, nervous system and brains but can you have too much of a good thing! The Earth has to work pretty hard to supply red meat and here are some stories that show that people are concerned about this.

A hamburger is a very popular quick meal to buy or to make at home. Scientists have worked out how to the amount of water it takes to get food to the table for us to eat. We all know that that a big problem for Australia is our lack of water so the first story is about how much water it takes to make a hamburger ready for you to eat.

http://knowledge.allianz.com/en/take_action/water/burger.html

In the Adelaide Sunday Mail newspaper, Professor Barry Brook from the Adelaide University talks about the 'Meats Carbon Hoofprint'. This is an interesting story about how much greenhouse gas is produced from eating beef compared with the greenhouse gases produced by a car.

<http://www.news.com.au/adelaidenow/story/0,,22776349-910,00.html>

The newspaper is often the only way people get to hear about important science issues like the greenhouse effect. How do you know if the information is correct or

trustworthy? Using the newspaper story checklist see how the 'Meats Carbon Hoofprint' tells the right story.

When you looked at the 'serves of food' recommended we can have the protein in our food from different sources. The plate of food you first looked at in step one showed red meat, chicken, lentils, nuts, fish and eggs. You have also learnt that you don't really need a lot of protein each.

Using a large piece of paper, make columns to show each day of the week. Now write the names of your family in each column and the 'serves of food' they each need for protein. You may need more than your brother or sister for example.

Read the information on the following website and write the name of a different protein you and your family can eat for each day of the week.

<http://www.formulaforlife.com.au/asp/healthyiving.asp?section=food&subsec=groups&pg=meat>

Remember that you may have to make some changes if you or your family has allergies to some of the protein suggested.

Step 4: Celebrate and Share

Now that you know some of the reasons why we need to balance the types of protein we eat your next step is to find a recipe for you to try on your family and friends.

To help look at this websites recipes

<http://www.formulaforlife.com.au/asp/recipes.asp>

and select one that has a protein source that does not have an animal protein such as fish, chicken, pork, beef or lamb.

If you are completing this work at a school which has a kitchen preparation room, your teacher may allow you to create your recipe at school to share. If you teacher does not have a kitchen then make it at home with your parent and bring it to school to share.

The best Chef's need to know if the recipe they have prepared is appreciated. You will need to have someone taste your recipe and ask them for their feedback about the taste and quality of the dish.

The person who tastes your recipe needs to fill out a 'food critique' form which you have made.

You will need to make sure that you have the recipe written down correctly showing all the ingredients in case someone has allergies to some of the food. This can be typed in or you can copy from the website you explored earlier.

Next you will have to make sure that they are judging your food for the right qualities so the suggestion is that it should include the following

- Appearance, is colorful and good to look at
- Aroma, smells good enough to eat
- Texture, is not too hard to eat
- Taste, has pleasant flavor
- Other comments

<i>Celebration Activity</i>	<i>What to do</i>
School lunch	Organise with your teacher a date for the sharing and critique of the recipe you have created at school or at home.
Library display	Organise with your library teacher a space to display your recipes and the critique of the recipe you have created at school or at home. You may like to find interesting library books to make encourage other children to cook.
Local newspaper	Write to the local paper about your new recipe and how it can help save the planet getting extra greenhouse gases. Show your teacher your draft script first.
Meals on Wheels	Review the recipes from your class, if you are working as a class group, and decide which 3 recipes you think are the tastiest. Write to your local Meals on Wheels people in your area, local council can help with the address, and share your new recipes with them. Show your teacher your draft script first.

Reflection:

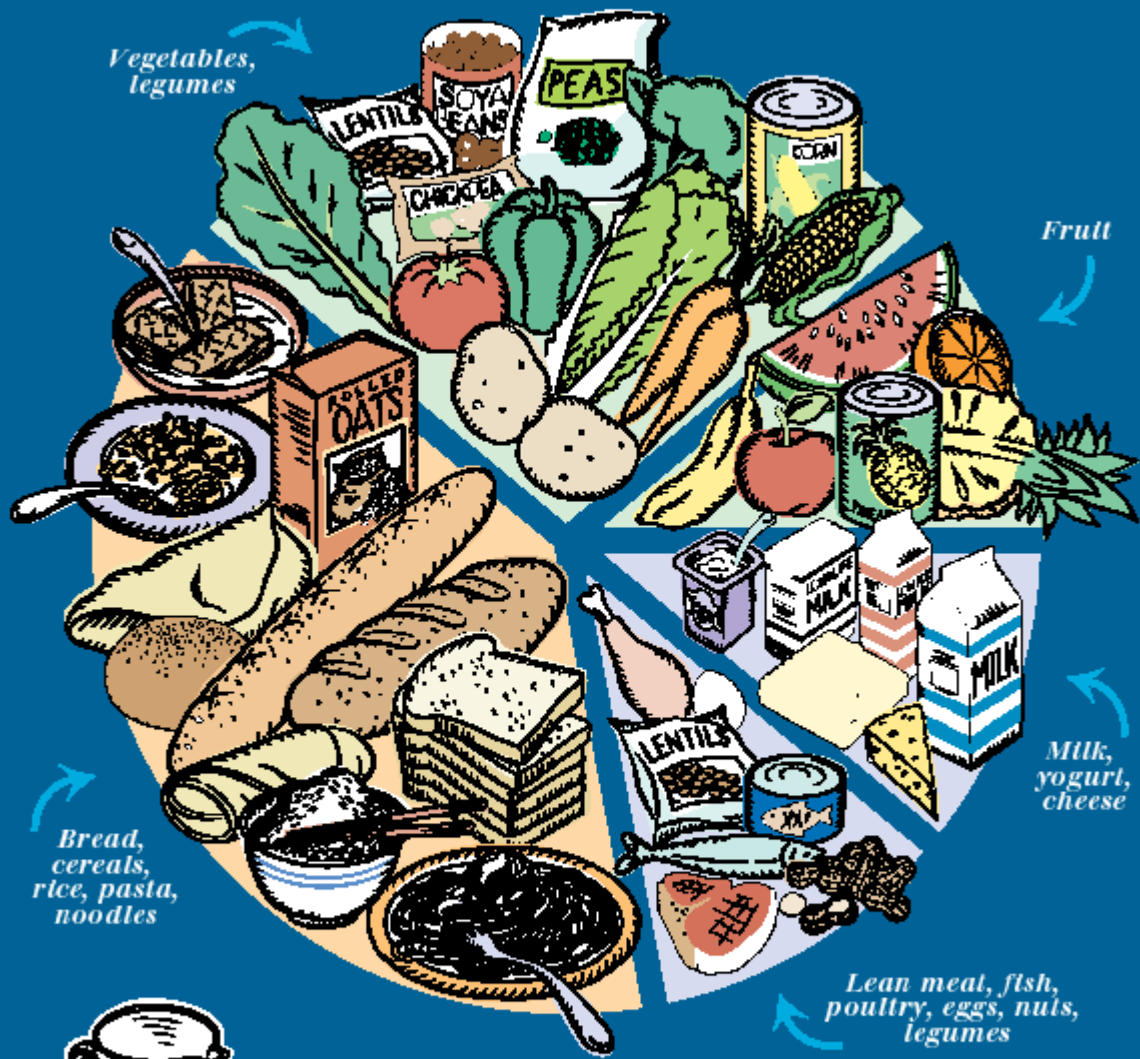
What I learnt by doing this activity: _____

How am I going to use the information: _____

Colour in your achievement on the assessment rubric.

[Activity adapted from *Operation Climate Change* for trial purposes; contact Elaine.Lewis@det.wa.edu.au]

Enjoy a variety of foods every day



*Bread,
cereals,
rice, pasta,
noodles*

Fruit

*Milk,
yogurt,
cheese*

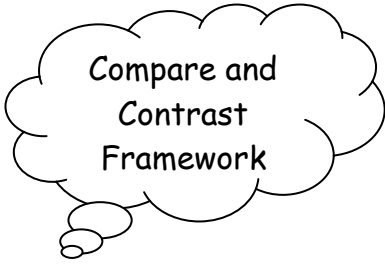
*Lean meat, fish,
poultry, eggs, nuts,
legumes*



Drink plenty of water

Choose these sometimes or in small amounts





How healthy is the food my family and I eat?

Name: _____

Contributed by: Jenny McDonald
Resource Reference: Blake Education

What foods did you and one other person in your family eat for breakfast, lunch and dinner yesterday? Write down what you both had then compare this to what the Australian National Government website suggests are the right amounts of each different food group to eat each day. Circle the food on your list that was not very healthy.

Name	A.	B.
<i>Breakfast</i>		
<i>Lunch</i>		
<i>Dinner</i>		

Step 2: Write down the foods you and your family may have to begin to eat to make your diet healthier.
