

# McMaths Fast Food Challenge

Can you eat healthy fast food for a day?

<b>Key Learning Areas</b>	Maths		Health	
<b>Key Concepts</b>	Percentages, conversion, & Calculations		Food Tables, Nutritional Value, Recommended Daily intakes	
<b>Age / Level</b>	<b>Age</b> 11 - 16	<b>USA</b> Yr 5 - 10	<b>UK</b> KS-3	<b>Australia</b> Yr 5 – 10
<b>Duration</b>	Approx 4 x 1 Hour Lessons			



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# Learning Intention / Overview

- Students will research a variety of take-away food menus to examine the amount of fats, carbohydrates and protein contained within some of their favourite fast foods.
- Students will create a menu to eat from a variety of fast food venues for an entire day to determine if it is possible to eat a nutritional diet of fast food venues alone. Students must that they stay within recommended dietary requirements for their age.
- During this task students will be using a range of mathematical concepts and procedures and gain a better understanding of reading food labels and making sense of what they mean.
- It is recommended that students have a basic understanding of the five major food groups and the food pyramid before completing this activity.



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# Lesson 1

- Introduce the lesson by discussing the amount of fast food we eat and how it is commonly conceived by the media that fast food is causing major diseases within our society such as obesity, diabetes and even cancers.
- Explain to students that during this task you will be examining food labels and nutritional tables with a specific focus on identifying what our *recommended daily intake* or RDI means and specifically we will be looking at the amounts of fats, protein and calories.



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# Lesson 1 cont...

- For the first part of this lesson students will have a dream fast food day where they will access the [McDonald's](#), [KFC](#) & [Burger King](#) Menus to select a day of fast food from any of these venues. Eat anything on the Menu.
- The only rules are that they must not eat the same item of food twice in one day and they must have 2 food components and a drink with each meal. (i.e.: Burger, Fries and Coke. Or Soft Serve, Burger and Orange Juice.)
- Students will record and tally the protein, calories and total fats on the tally sheet printout and total them at the bottom.



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# Lesson 2

- Students today will analyse their total calories, protein and Fats from the previous lessons against the table on the next slide to determine how far over the RDI they went with their dream menu.



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# Recommended Daily Intake

Nutrient	Age 2 - 3	Age 4 - 8	Age 9 - 13	14 - 18 Boys	14 - 18 Girls
Protein	13	19	34	52	46
Total Fat (g)	33 - 54	39 - 62	62 - 85	61 - 95	55 - 78
Calories	1000 - 1400	1400 - 1600	1600 - 2200	2200 - 2400	2000

[Source](#)

- Essentially this table explains the minimum and maximum amounts to meet a healthy dietary intake. Obviously calories can be burnt off through activity and exercise. Visit [HealthAssist](#) to get an idea of how much exercise is required to burn a specific amount of calories. An example of this is that you would need to do 12 solid minutes of fast paced aerobics to burn 100 calories.



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# Lesson 2 cont...

- The next part of this lesson is for students to tally up the percentage they are over for all three areas.
  - I.e.: your daily intake of fat was 180 grams and the RDI was 75. you divide 180 by 75 to get an answer of 2.4 and then multiply 2.4 by 100 to get your percentage = 240% meaning you ate 2.4 days worth of fat.
- Finally use the [healthassist](#) calorie calculator to calculate how much exercise you would have to do to burn off the excess calories you would have eaten.



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# Lesson 3

- The next phase of this task is to try and consume a days worth of food but this time they are aiming to stay within all the Recommended Daily Intake figures for protein, fat and calories.
- The Same rules apply – no piece of food from the same store can be eaten twice and two food items and one drink must be consumed with each meal.
- Students will really be challenged to meet this requirement and may need to make a number of alterations to menu before completing this task.



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# Lesson 4

- Students will reflect on this task by presenting a poster or digital presentation of their completed healthy menu and a statement addressing the following areas.
- What have I learnt about food charts and Recommended daily Intake?
- Name all forms of maths strategies used in completing this activity.
- How might this affect what I eat in future when at a fast food store?



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# Assessment

- Assessment will take place by students identifying the correct mathematical strategies and procedures required, i.e. – 4 operations, percentages, ratios and trial and error and by the accuracy of their completed healthy table.
- Assessment should also consider the reflection of key nutritional concepts explained in the students presentation and effort put into completing this task.



- For more lesson plans please visit [www.edgalaxy.com](http://www.edgalaxy.com)
- [McDonalds Nutrition Table](#)
- [Burger King Nutrition Table](#)
- [KFC Nutrition Table](#)
- Daily Food Tally Sheet
- [Health Assist Calorie Calculator](#)



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# Fast Food Tally Sheet Printout

	Menu Item	Kilojoules (rec ____)	Total Fats (rec ____)	Carbs (Rec ____)	Protein (Rec ____)
Meal 1					
Meal 2					
Meal 3					
Totals					
Percentage of Daily Intake					