

## Food additives

### Worksheet 1 - teacher's notes

1. What is your favourite food? What is your guilty pleasure? What cuisine do you like ?
2. What nutrients do we get from our food? Look at the chart and try to complete the information:

| Group         | What are they...  | Found in..   | Important because..   |
|---------------|---|--|---|
| Fats          | <i>Fats are either saturated or unsaturated. Saturated fats have been linked to heart disease and raise the level of cholesterol in blood. This is the kind of fat you don't want to eat.</i>   | <i>Some vegetable foods contain saturated fat like nuts, margarine, coconut oil, or palm oil and chocolate. Saturated fats and cholesterol are found in animal foods like butter, cheese, red meat and animal fat. Unsaturated fats are found mostly in oils like canola, corn, cottonseed, olive, peanut, safflower, sesame, soybean and sunflower.</i> | <i>Fat (lipids) provides insulation for the body and padding around internal organs. Some dietary fat is needed as a source of essential fatty acids for fat soluble vitamins. Several nutrients are found in fat, including vitamins A, D, E, K and essential fatty acids. Fats are important in our diet, particularly triglycerides and cholesterol.</i> |
| Carbohydrates | <i>Carbohydrates are organic compounds that are either simple or complex. Simple carbohydrates are sugars found in fruit (fructose), milk (lactose), and table sugar (sucrose). Complex carbohydrates are commonly known as plant starches.</i>   | <i>bread, beans, rice, potatoes, vegetables, fruits, and pastas, grains, legumes</i>   | <i>Carbohydrates are the body's most important source of energy. Most of the calories you eat everyday should come from complex carbohydrates</i>   |
| Protein       | <i>Our hair, our nails, our skin, our blood, our enzymes and hormones are protein; indeed, our bodies contain some ten thousand to fifty thousand kinds of protein. But these proteins are constantly being broken down into amino acids, recycled and built anew, even oxidized to some extent to provide energy.</i>                                      | <i>Protein and amino acids are found in both plant and animal foods.</i>   | <i>Proteins help muscle tissue develop and function. Protein is needed to make hair, skin, nails, muscles, organs, blood cells, nerve, bone and brain tissues, enzymes, hormones, and antibodies.</i>   |
| Fiber         | <i>Can't be digested, fills you up and keep your digestive system in check</i>  | <i>Fruit, vegetable, wholegrain cereals</i>  | <i>fills you up and keep your digestive system in check</i>   |
| Minerals      | <i>Minerals do not contain calories, but are important to many bodily functions. There are two groups of minerals: major minerals and trace minerals. Major minerals include calcium, phosphorous, magnesium, potassium, sulfur, and sodium. Trace minerals are needed in small amounts: they include iron, zinc, manganese, copper, iodine, and cobalt</i> | <i>Major minerals are found in a variety of foods including milk, meat, poultry, fish, and green, leafy vegetables. Trace minerals are found in shellfish, seafood, whole grains and legumes.</i>  | <i>Minerals often work together. Too much of one mineral may upset the balance of other minerals.</i>   |

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|          |  |                            |   |
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| Vitamins | Vitamins are complex organic compounds found in small amounts in most foods. Vitamins do not contain calories and therefore do not provide energy. | Fresh fruit and vegetables | However, vitamins are important for metabolism and for our organs to work properly. Vitamins C, folic acid, and all of the B vitamins are water soluble. Water soluble vitamins are passed out of the body in urine. They do not build up and harm the body. Vitamins A, D, E, K, are fat soluble. They are stored in fat cells. Too much of these vitamins in our system can lead to toxic build-up. |
|----------|--|----------------------------|---|

<http://www.becomehealthynow.com/category/foodbasics/>

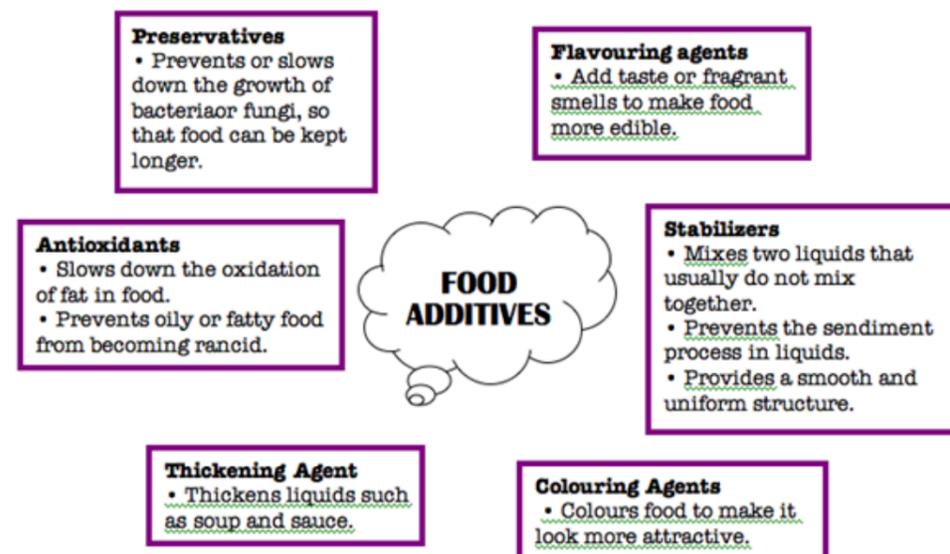
<http://healthyeating.sfgate.com/reasons-carbohydrates-proteins-fats-vitamins-minerals-necessary-good-nutrition-3170.html>

<http://www.healthpages.org/basics-healthy-eating/need-food/>

[http://www.bbc.co.uk/schools/gcsebitesize/pe/performance/0\\_performance\\_nutrition\\_rev1.shtml](http://www.bbc.co.uk/schools/gcsebitesize/pe/performance/0_performance_nutrition_rev1.shtml)

3. Unfortunately, apart from nutrients which are really healthy and good for our bodies, we also ingest additives like colourings and preservatives. Can you think of the reasons they are they added to our food?

*to preserve food, to add flavor, to make it look better, to improve taste...*



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Read more about food additives here:

<http://my-chem-assignment.blogspot.com/2011/12/food-additives.html>

[http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Food\\_additives](http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Food_additives)

<http://foodmatters.tv/articles-1/top-10-food-additives-to-avoid>

What are the side effects of additives? How do they influence children ?

4. Have a look for any wrappers, packaging you might have from the things you have eaten today. Look at the ingredient list and try to identify the additives. What do you think?

*students' own answers*

5. We should avoid processed food and try to eat simple, fresh and locally grown produce. Have you heard a term superfoods ? Find out what they are here:

<http://www.webmd.com/food-recipes/features/10-everyday-super-foods?page=2>

[http://www.eatingwell.com/nutrition\\_health/nutrition\\_news\\_information/10\\_everyday\\_superfoods](http://www.eatingwell.com/nutrition_health/nutrition_news_information/10_everyday_superfoods)

*blueberries, kiwi fruit, pumpkin, chia seeds, yoghurt, eggs, nuts, quinoa...*