

## Teaching ideas for Option A, *Human nutrition and health*

This SL-only option can be applied easily to everyday life and students' experiences. The three sections – A1 *Components of the human diet*, A2 *Energy in human diets* and A3 *Special issues in human nutrition* – form a logical sequence to follow.

### Practical activities

- Requirements for a balanced diet can be addressed by inviting students to bring in food packaging and consider nutritional labelling from manufacturers. Students can keep a diary of their own food intake and decide whether they are eating a balanced diet.
- Practical work using vitamin C tablets and DCPIP can be carried out by students to construct a standard graph against which they can compare the vitamin C content of different foods. An assessable investigation could be to consider the effect of cooking or aging on the vitamin C content of a particular food or fruit juice. Wider issues concerning vitamin and mineral intake can be discussed here. Many sources provide information on the value of vitamins and minerals, such as iodine, for example:  
[www.iccidd.org/pages/iodine-deficiency.php](http://www.iccidd.org/pages/iodine-deficiency.php)  
[www.bbc.co.uk/news/health-11232356](http://www.bbc.co.uk/news/health-11232356)
- For students interested in fitness (and for those who will also study Option B, *Physiology of exercise*) calculation of BMI, and discussion of unexpected BMIs of very muscular individuals such as weight lifters, is interesting.
- Students can research the historical and cultural aspects of body weight and the desirability of being large or thin at different times in different cultures. Current concerns about the increase in obesity in some modern cultures can be linked to the rise in type II diabetes.
- Provide students with resources on some popular imported food products and lead a discussion on the desirability of these foods, which consumers can obtain all year round. Students should also consider the carbon costs and benefits of growing food further away from consumers in areas where less carbon consumption is needed, and the need to transport the food.
- Ask students to construct a 'balance sheet' of costs and benefits of artificial milk, to include cultural, sociological and nutritional aspects of the issue.
- Resources produced by government agencies, such as the FDA in the USA ([www.fda.gov](http://www.fda.gov)) and the NHS in the UK ([www.nhs.uk/LiveWell/Goodfood/Pages/Goodfoodhome.aspx](http://www.nhs.uk/LiveWell/Goodfood/Pages/Goodfoodhome.aspx)), are useful for student investigations of nutritional values and requirements.

### Links to TOK

- There are several opportunities to consider risks and decision-making in life choices in the incidence of both coronary heart disease (CHD) and type II diabetes. Students can consider how important personal choice is and compare it with the need for society to provide health care to those who choose to ignore advice.
- Correlation and cause can be considered and related back to Chapter 1. The issue can be discussed in relation to dietary choices or to the importance of cholesterol in causing heart disease.

### Links to ICT

- Colorimeters can be used in DCPIP practical work with vitamin C.
- Students can use internet resources to research the history of obesity and the rise of anorexia.



## Aspects of internationalism

- It is important to consider cultural and ethnic differences in the occurrence of both CHD and type II diabetes. Genetic differences are important in the incidence of both conditions and should be carefully drawn out.
- Advertising of artificial milk products could be discussed in the context of the relationship between developed and developing nations.