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Teachers' Notes

Digi Bites 1: Eat Right – eating a healthy, balanced diet

Clip	Suggested Possible Uses/Teaching Strategies
Causes and Costs of Obesity	■ Establish what is 'obesity' - how much weight excess constitutes obesity? ■ BMI. What is it? How can it be measured and evaluated? Students measure own BMI. Consider the + and – of using BMI as a method for measuring. Others could be researched, analysed and discussed. ■ Examine average acceptable weight chart. Students could relate it to their own height and weight. (needs sensitivity) ■ Discussion on causes of obesity. ■ Discussion on how obesity affects lifestyle even when no actual illness appears to be in evidence e.g. self-esteem, fashion etc. ■ Top 3 changes to lifestyle could be discussed to address the obesity issue. ■ Discussion on effects of obesity - related diseases and life expectancy. ■ Examine the figures given in the clip. Students relate it to the people living in their road, in their family, club etc. ■ Discussion on cost to NHS and industry. How would students choose to spend that £500m if they were Chancellor of the Exchequer? ■ Consider how food labels could be used to help appropriate food selection in the battle to beat obesity.

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Teachers' Notes

Digi Bites 1: Eat Right – eating a healthy, balanced diet

Clip	Suggested Possible Uses/Teaching Strategies
Young people and Obesity	■ Discuss the alarming figures for obesity in teenagers and likely causes. ■ Students could record their weekly number of hours of physical exercise, watching TV, computer work, studying etc. and explore possible improvements. ■ Teacher led information session on value of the macro and micro nutrients and the effects of deficiency. ■ Explore good sources in the diet and how they can be incorporated. ■ Opportunity to discuss the adverse effects of not taking-in enough energy for lifestyle, various diet fads and the slimming diseases. ■ Research and analyse how weight and body image are portrayed to younger people (magazines, celebrity role models, TV programmes etc.). Display and discuss findings. Consider all aspects of the spectrum (anorexia through to obesity).

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Clip	Suggested Possible Uses/Teaching Strategies
Healthy Balanced Diet	■ Students could keep personal food diaries recording a week's intake making sure they include all liquids – include water, the milk on cereals and whether milk is taken in tea/coffee, as well as small intake foods such as spread/ butter/jam on toast, sugar on cereal etc. These could be analysed in class and could lead to a lively debate on possible improvements/excesses and deficiencies. (A photocopiable diary sheet could be provided for students to complete). Students could complete nutritional analysis of their daily/weekly diet using a suitable ICT program. ■ Intake of fruit and vegetables? How compliant was their intake with 5-a-day? ■ Why do some people dislike fruit and vegetables? ■ Survey multicultural fruit and vegetables. Follow up with a tasting session of the most unusual or popular identified. ■ How can low intake be overcome? Perhaps some practical work making smoothies, puréed soups, minced in meat dishes such as Shepherd's Pie, fruit in sorbets/ice creams as well as dried fruits as snacks or in baked goods. Possible opportunity for product development. ■ Intake and sources of fibre? ■ Water intake? ■ Teacher led discussion on hidden fats and sugars using a range of everyday foods. ■ Set up a guess the portion size of a range of food activity. ■ Students could design balanced meals, balanced day's or week's menus for particular lifestyles - e.g. sedentary professional, fit elderly, small child or specific sports people such as footballer, marathon runner etc. These could be analysed using a suitable nutritional analysis program.

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Clip	Suggested Possible Uses/Teaching Strategies
Health Benefits of Red Meat	■ Further exploration of the importance of iron – haem and non-haem. If little or no red meat is eaten what are the alternative sources of iron? How desirable are these alternatives? ■ Survey how often red meat is eaten. How is it prepared and served? ■ Exploration of various methods of cooking, their uses and outcomes for various cuts of meat. ■ Investigate the fat content of different cuts of meat. This could be done experimentally with very small portions as a demonstration or as group work in class. ■ Teacher led information on ways in which fat content of meats has been reduced through breeding. ■ Emphasis on "variety" in the diet almost certainly leading to "balance."

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Clip	Suggested Possible Uses/Teaching Strategies
Nutrition for Sports People	■ Discussion on the health benefits of exercise – weight control, self-image, self-esteem, competitiveness, social interaction etc. ■ The issue here is the similarity in the diet of the sports person and members of the public, but with emphasis on the need for more energy and more protein. ■ Sources of the required energy and protein – how desirable, how costly, how easily available, how easily/quickly prepared and cooked given the constraints experienced by the athlete? ■ Reference to energy intake versus energy output. ■ Record and analyse the amount of sport played weekly by student. This should include training and gym work. ■ This could be an opportunity to discuss the energy used per hour in various activities – sleeping (discuss BMR), sitting, swimming, jogging etc. ■ Pick a sport/sports person and investigate special dietary requirements for optimum performance. ■ Contact a sports dietitian and invite them into school for a planned question and answer session. ■ Survey group to see if anyone plays sport and follows recommended dietary guidelines as a consequence.

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Clip	Suggested Possible Uses/Teaching Strategies
Red Meat for Young People	■ The differences between requirements for, and sources of, High Biological Value and Low Biological Value proteins could be discussed with particular reference to growing children and active teenagers. ■ There could be emphasis on specific reasons for females and sports people needing iron. ■ Reasons for reduced performance if iron intake is inadequate. ■ The functions and sources of zinc could be covered. ■ Consider the pros, cons, costs etc. of using vitamin and mineral supplements in the diet.

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Digi Bites 1: Eat Right – eating a healthy, balanced diet

Clip	Suggested Possible Uses/Teaching Strategies
Steak Sandwich Stack	■ Opportunity to explore food contamination, plough to plate - discuss the reasons for washing fruit and vegetables, cooking meat from rare to well-done and kitchen/personal hygiene in food preparation areas. Various types of food contamination e.g. microbial and physical. ■ Which other meats could be used in the stack? Consider choices, preparation and cooking. Follow up with a practical making the alternatives suggested. Include a tasting and analysis session. ■ How to choose red meats – colour, fat density, marbling etc. ■ Teacher led discussion on the various cuts of red meat, their cooking methods and uses. Use could be made of a diagram of a side of beef. Why are some cuts tougher than others? More advanced students could explore muscle composition and tenderisation techniques. ■ Shop survey to establish cost of sirloin steak versus other cuts of beef and how they might be used similarly or product development. ■ A class/individual design and make exercise to produce a new red meat product maybe using a particular cut or within a price/time or other constraint. ■ Why is olive oil healthier? Opportunity to explore a selection of fats and oils and their saturation/health properties. ■ Look at a range of oils, discuss uses, comparative costs and possibly have a taste session. ■ Note the use of herbs to give flavour instead of salt. Explore other possible flavour-giving ingredients in cooking of savoury dishes. ■ Use of hummus as a spread versus alternatives.

Teachers' Notes

BMES Digi Bites Mapping to AQA & Edexcel GCSE, AS and A2 Specifications

Clip Title	AQA GCSE (FULL COURSE) specification (Module 2)	AQA GCE AS specification (Module 2)	AQA GCE AS specification (Module 3)	AQA GCE A2 specification (Module 7)	AQA GCE A2 specification (Module 8)	Edexcel GCSE specification	Edexcel AS/A2 specification
Causes and Costs of Obesity	10.9	11.1	12.1	16.1 16.2		AO1 a (i)	2.4 3.4
Young People and Obesity	10.9	11.1	12.1	16.1 16.2		AO1 a (i) AO1 a (ii)	2.4 3.4
Healthy Balanced Diet	10.5	11.1	12.1	16.1 16.2		AO1 a (i)	3.4
Health Benefits of Red Meat	10.5	11.1	12.1	16.3		AO1 a (ii)	3.4
Nutrition for Sports People	10.5 10.9	11.1	12.1	16.2 16.3		AO1 a (i)	3.4
Red Meat for Young People	10.9	11.1	12.1	16.1 16.2 16.3		AO1 a (i)	3.4
Steak Sandwich Stack	10.2 10.3 10.4 10.6 10.7 10.10				17.4	AO1 a (i) AO1 a (ii) AO1 b (i) AO1 b (ii) AO1 b (v)	2.2 2.3 2.4 3.2 3.5

Clips 1-6 are good resource material for the background research sections of the coursework for each of the above specifications. There is useful statistical data and information for work on product development for a range of project briefs.

Clip 7 could be used for ideas on preparation and presentation techniques. The clip also alludes briefly to food hygiene and simple nutrition.