

RSPH Level 4 Certificate in Nutrition for Physical Activity and Sport

Unit Nut 4.3 Nutrition for Physical Activity and Sport (Reference No. L/504/4246.)

Marking Guidelines

ICE SKATERS

It is September and a new school term. You are a sports teacher at a sports academy and act as coach to the ice dancers as you are yourself are an experienced skater and competed at international level.

You have a group of 6 ice dancers who are due to compete in competitions starting in the new year. The group consists of 3 boys and 3 girls and all are 16 years old.

Due to the routines the boys have to be strong to lift the girls and the girls light but strong.

Each routine is a maximum of 10 minutes but each day they rehearse after school for 1-2 hours.

1. Outline, with reasons and reference to dietary reference values, the likely nutritional requirements for the skaters. You should highlight any differences between individual skaters and include reference to their energy and hydration needs.

Nutrient requirements should include carbohydrates, fats and protein. DRVs should relate to age and, sex of team members and activity levels. Key micronutrients should also be covered to include key minerals and vitamins.

Energy and hydration needs should relate to required calorie levels for individuals of their age who are physically active. Mention should also be made of any need to build up energy stores

2. Outline the methods which could be used to estimate the energy requirements of the riders

Should cover determination of BMI and use of tables.

3. The sports academy has a fully equipped exercise laboratory. How could you use this to determine the energy requirements of your skaters more accurately?

Accurate measurement of energy expenditure, eg by spirometry, use of treadmills etc.

Two of the girls are vegetarian. One of the girls in the past suffered from anorexia nervosa and while she has now recovered any emphasis on weight loss is not advisable.

4. Develop a dietary regime for the group to follow at home. The regime must cover all their nutritional and energy requirements while allowing them flexibility of choice. It should also provide guidance on preparation methods.

Should be able to cross-reference foods in diet to nutrient requirements in terms of protein, carbohydrates, fats, minerals and vitamins. Energy requirements should relate to calorific intake and maintenance / development of energy stores if applicable, glycaemic index of foods in diet and how quickly nutrients can be converted into energy. Reference should be made to any variation due to gender and vegetarian options. Preparation methods should minimise loss of nutrients and not increase levels of salt or saturated fats.

NB MUCH OF THE RESEARCH ON SPORTS NUTRITION RECOMMENDS A HIGH CARBOHYDRATE DIET AND NO LONGER USES CARBOHYDRATE LOADING

5. Explain how your dietary regime and preparation methods fulfil the nutritional and energy requirements of the skaters.

See above

6. Some of the parents of the skaters are concerned about the use of performance enhancing products. Produce a fact-sheet to give to the parents that covers the pros and cons of these products and recommendations for their use.

Should cover pros and cons of different products and the need for and usage of these products for this age group and level of ability. Recommendations for use should restrict to high energy drinks during training and competition.

7. For the weekend prior to the first competition the team will be staying in self catering accommodation near the ice rink where they will compete. You as their teacher will be responsible for organising meals during this period. You will be assisted in the cooking by the team. You know from previous experience that their cooking ability is somewhat limited.

You must devise three complete day's menus,

- one for the day preceding the event
- one for the day of the event
- one for the day following the event.

As the group wants to watch other competitors as well as socialise with them meals need to be easily cooked.

You should explain how your menus meet the different requirements relating to training, competition and recovery and indicate how the menus can be adapted for individual requirements.

Menus should be appropriate for age and ability levels of skaters. Explanation of different requirements for training, competition and recovery and how the suggested menus meet this requirement. Individual requirements should refer to vegetarian girls. Importance of recovery phase for replenishing energy stores should be highlighted.

When carrying out this assignment, candidates should ensure they refer to the learning outcomes, assessment criteria and content contained in the qualification specification.