

# 1

90961



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## Level 1 Home Economics, 2017

### 90961 Demonstrate understanding of how packaging information influences an individual's food choices and well-being

2.00 p.m. Tuesday 21 November 2017  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of how packaging information influences an individual's food choices and well-being.	Demonstrate in-depth understanding of how packaging information influences an individual's food choices and well-being.	Demonstrate comprehensive understanding of how packaging information influences an individual's food choices and well-being.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

**You should attempt ALL the questions in this booklet.**

Pull out Resource Booklet 90961R from the centre of this booklet.

You **MUST** use the resources provided in the resource booklet to answer the questions.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–12 in the correct order and that none of these pages is blank.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

**High  
Excellence**

**TOTAL**

**15**

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**INSTRUCTIONS**

Read **Resource Booklet 90961R** and the scenario below, and refer to them when answering Questions One and Two.

**Tahlia's Scenario**

Tahlia is a Year 11 student, and plays netball. Her brother Jake is in Year 13, and plays in a football (soccer) team, for their college.

Tahlia takes Home Economics as a subject at school and is learning about reading food labels and making nutritious food choices. Tahlia and Jake's parents both play sports and are careful with the food choices they make.

None of the family has a food allergy.


**QUESTION ONE: SNACK BARS**

Read the scenario below, and refer to it, as well as **Resource A** on pages 2–7 of the resource booklet, when answering this question.

Tahlia is looking at suitable snack bars for her and her sporty family to eat before games and sports practices.

She looks at the front of the packaging on each product, then reads the nutrition information on the side or back panel, and checks out the promotional and nutritional features before making a choice.

- (a) Explain how and why the nutritional and promotional features from the snack bars in the table on the following page, could influence Tahlia's food choice.

Feature	Explain how and why this feature could influence Tahlia's food choice
<p>(i) Tasti Made Simple Wholefood Bars</p> 	<p>This gives the impression that the muesli bars are reasonably healthy with a 3.5 health star rating. This could attract Tahlia because she's looking for a healthy muesli bar and this one seems <u>reasonably</u> healthy because it's almost 5 star.</p>
<p>(ii) Mother Earth Fruit Sticks</p> 	<p>The bear and the quote on the packet give the impression that by buying this brand of muesli bars you're also supporting nature and the environment. Tahlia might be particularly interested in bears and helping the environment so she knows by buying this she can benefit EnviroSchools.</p>
<p>(iii) Mother Earth Fruit Sticks</p> 	<p>This phrase gives the impression that the muesli bars are full of natural ingredients and no unnecessary additives. Tahlia knows that artificial colours and flavours are not nutritious so by choosing this product she is choosing a nutritious snack, that has a <u>positive</u> impact on her families health.</p>

(b) Tahlia has been taught in her Home Economics class to consider all of the nutrients in food products to make an informed choice. She has decided the Nice & Natural Protein Nut Bars are the better choice of snack bar.

- (i) **Write** the amount of total fat, sugar, and fibre (per 100g) for EACH snack bar in the chart below.

*Note: The amounts of protein have been entered for you.*

- (ii) **Underline** the ingredients that contain fat for EACH snack bar's ingredients list in the chart below.

- (iii) **Circle** the ingredients that contribute to the sugar content for EACH snack bar's ingredients list in the chart below.

Per 100 grams	Tasti Made Simple Wholefood Bars	Nice & Natural Protein Nut Bars	Mother Earth Fruit Sticks
Protein	7.7g	25.5g	4.5g
Total fat	14.7g	34.3g	3.0g
Sugar	46.6g	6.6g	25.6g
Fibre	8.8g	12.9g	3.4g
Ingredients	<u>Dates</u> , roasted <u>cashews</u> , <u>cocoa powder</u> , <u>coconut</u> , natural coconut flavour.	<u>Peanuts</u> , soy protein crisps [soy protein isolate, tapioca starch, soy lecithin, salt], <u>glucose syrup</u> , chicory fibre, <u>superseeds</u> [sunflower seeds, pumpkin seeds, chia seeds], <u>dried cranberries</u> , <u>dried goji berries</u> , <u>sunflower oil</u> , quinoa crisps, glycerine, natural flavour, citric acid, soy lecithin, <u>caramelised sugar syrup</u> , stevia.	Wheat flour, <u>raspberry filling</u> [fruit: <u>concentrated apple puree</u> , <u>raspberry puree</u> ], <u>glucose syrup</u> , humectant [glycerol], <u>sugar</u> , gelling agent [pectin], wheat fibre, firming agent [calcium lactate], natural flavour, acidity regulator [citric acid], fruit and vegetable concentrates [black carrot, blackcurrant], maltodextrin, <u>golden syrup</u> , <u>invert sugar</u> , <u>brown sugar</u> , <u>sugar</u> , desiccated coconut, [ <u>coconut</u> , colour stabiliser: 223, (sulphites)], dietary fibre [inulin], raising agents (450, 500), <u>butter</u> [cream (milk), salt], <u>sunflower oil</u> , emulsifier (471), natural flavour, salt, wheat bran, wheatgerm, natural colour [annatto].

(c) The Nice & Natural Protein Nut Bars contain the most protein.

(i) Explain why having enough protein is important for Tahlia and her family.

Protein is important for Tahlia and her family because Tahlia and her brother are still growing. Protein is important for growth and the repairment of tissues and muscles. Repairing of cells helps each member to recover after sport. Protein is also a cont.

(ii) Justify HOW and WHY the Nice & Natural Protein Nut Bars are the best choice for Tahlia and her family members to eat before games and sports practice.

Consider factors such as:

- the effect of eating fat and sugar on physical well-being
- your own knowledge of the *Food and Nutrition Guidelines* (FNGs) for active teenagers.

#### PLANNING

Total fat = 34.3 g  
sat = 5.8 g

sugar = 6.6 g

FNG recommend snacks low in fat & sugar

The Nice & Natural Protein Nut Bars are the best option for Tahlia and her family because they have the lowest amount of sugar out of the three bars and they are also low in saturated fat. The total sugar in this bar is

**Part (c) (ii) continues on the next page**

6.6g per 100g, which is pretty low because it's less than 10% sugar. Sugar is a simple carbohydrate meaning it's a quick burst of energy, which can come in handy for a quick activity. The bar is still high in carbohydrates that aren't sugar so there's still complex carbohydrates that have slow release energy to keep Tablia's family going during sports games. Too much sugar can be bad because it's considered an energy and when that energy isn't used up it stores as fat, causing obesity. It also is bad for dental health and can cause type 2 diabetes. Fortunately The Nice & Natural Protein Nut Bars are low in sugar which prevents these health issues from happening.

The Nice & Natural Nut Bars are high in total fats with a total of 34.3g of total fats per 100g making them the highest of the three brands. Out of the total fat only 5.8g is saturated fat which is low. Too much saturated fat has a negative impact on your health and can cause heart problems (especially increased risk of heart failure in the future) by raising your cholesterol and it can also cause obesity. But these muesli bars have a majority of other healthy fats from the peanuts and seeds. These fats provide energy to Tablia and her family to keep them going in sport activities and they also provide fat molecules to help the fat soluble vitamins (ADEK) to absorb - which is essential to anyone's health. The FNG recommend choosing snacks low in sugar and fat. These muesli bars meet that guideline and although they have a high fat total, most of the fat is healthy fats which are essential to anyone, who's especially active, diets.

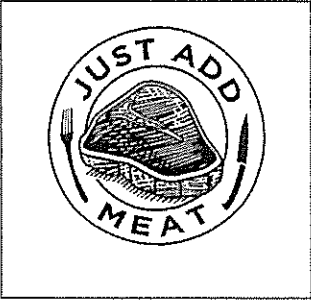
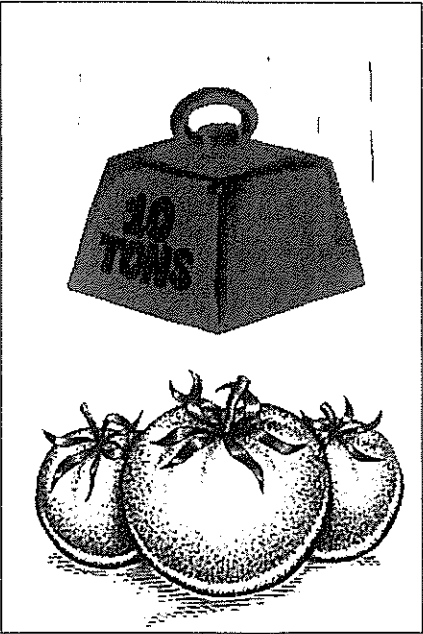
## QUESTION TWO: KILLER SAUCE FOR SPAG BOL

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Read the scenario below, and refer to it, as well as **Resource B** on pages 8 and 9 of the resource booklet, when answering this question.

Tahlia, Jake, and their parents want a quick meal to cook so they can attend sports practices. Tahlia's mum has brought home "Killer Sauce for Spag Bol" for them to use. They already have dried spaghetti in the cupboard.

- (a) Explain how and why the promotional features from the Killer Sauce for Spag Bol in the table below, and on the following page, could influence their mum to buy it.

Feature	Explain how and why this promotional feature could influence Tahlia and Jake's mum to buy the Killer Sauce for Spag Bol
<p>(i)</p> 	<p>This feature is used to give the impression that it's easy to make because there's only one instruction - to add meat. This could influence Tahlia's mum to buy it because she's looking for a quick and easy meal to make and to make this meal all she would have to do is add meat.</p>
<p>(ii)</p> 	<p>This implies that there is '10 tons' of tomatoes squeezed into the <sup>packet</sup> <del>box</del> of sauce. The weight describes that the tomatoes have been pressed as much as possible to fit plenty into the packet. This influences Tahlia's mum because she knows tomatoes are good for the family's health and buying this ensures they get vegetables in their meal.</p>

(iii)

**FEEDS 4 HUNGRY MOUTHS**

This feature tells the person purchasing the sauce that it serves 4 plus extra because people eat more when they're hungry. This influences Tahlia's mum because they have a family of four so there'd be no waste left over and there'd be plenty of food for her and her hungry family.

(b) According to the *Food and Nutrition Guidelines*, the amount of meat suggested is too much for Tahlia's family's well-being.

(i) Tick the total amount of beef mince that is most appropriate for a meal intended to meet the needs of a family of four.

Amount of beef mince	Tick <input checked="" type="checkbox"/> ONE
700g	<input type="checkbox"/>
500g	<input checked="" type="checkbox"/>
300g	<input type="checkbox"/>
200g	<input type="checkbox"/>

(ii) Red meat is a good source of iron.

Describe the effect of eating enough iron on Tahlia's and Jake's physical well-being.

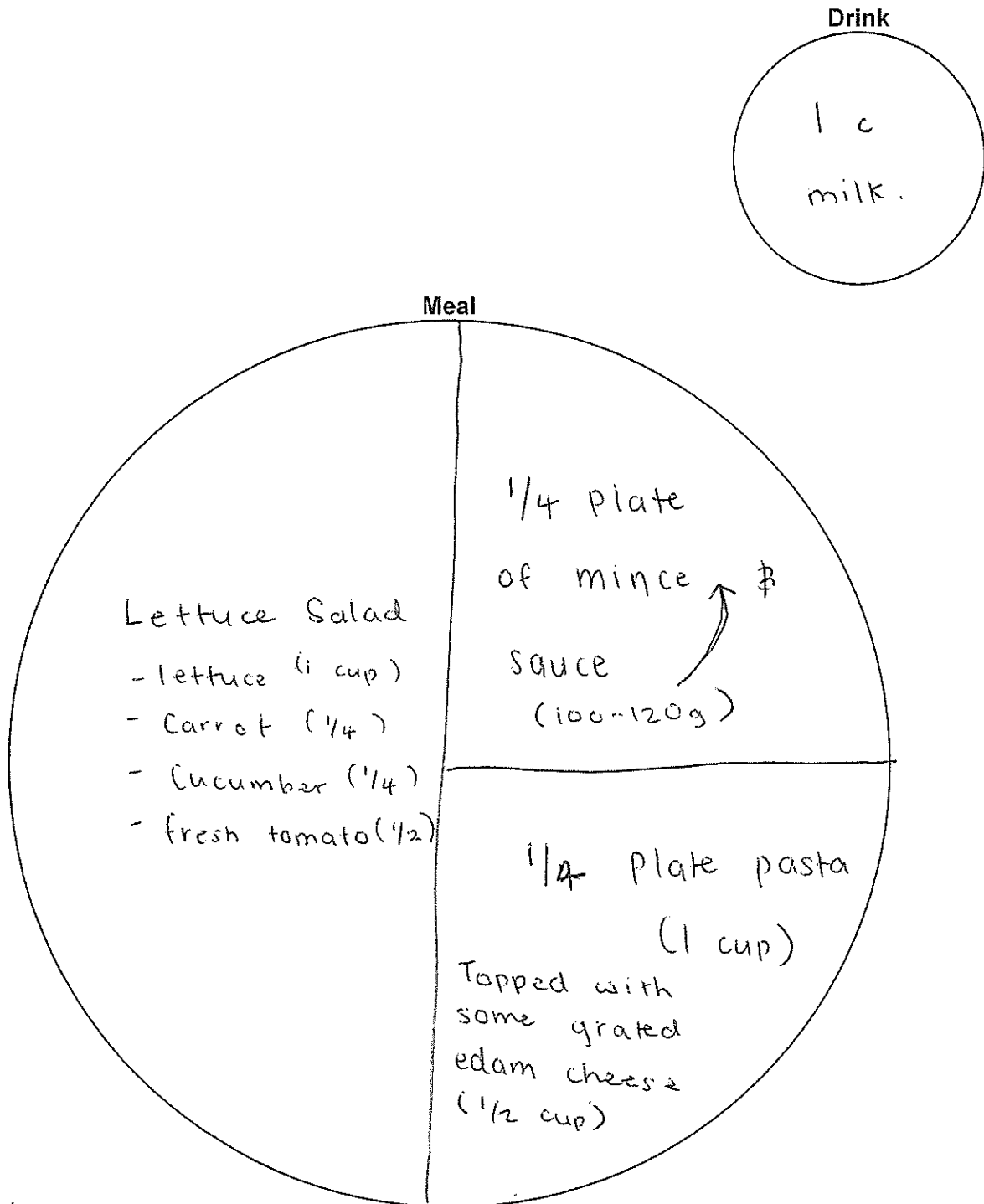
Iron is important for Tahlia and Jake's physical well-being because it's a nutrient that creates oxygen in our body - needed for the transportation of red blood cells. With low iron you can begin to feel fatigued and anemic as there isn't enough red blood cells travelling around your body, creating a negative effect on Tahlia and Jake's well-being. By being fatigued Tahlia and Jake



(c) Tahlia is making the Killer Sauce for Spag Bol meal for her family. Her mum has told her to use mince and spaghetti as a base for the meal, and to choose other ingredients to complete the meal. The meal needs to have a wide range of nutrients and be quick to make.

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(i) Draw and label the complete meal as an 'ideal plate model' below, indicating the portion sizes of the ingredients, as well as identifying an appropriate drink.



Part (c) (ii) continues on the next page

- (ii) Justify your chosen meal by explaining the benefits of the **additional food** you have placed on the plate, and your choice of **drink**.

Consider factors such as:

- your own knowledge of the *Food and Nutrition Guidelines* (FNGs)
- preparation and cooking time
- additional nutrients and their contribution to the physical well-being of Tahlia's family.

### PLANNING

Salad

- no cooking time, not nutrients lost in meal from cooking; can prepare while cooking

immunity, fibre

Cheese

- adds calcium

Glass of milk

- Important source of calcium

} Strong bones  
protein.

For my spag bowl meal I've chosen to add a side salad and a glass of milk.

By adding a side salad it adds vegetables to the meal.

The FNG recommend <sup>at least</sup> 5 servings of fruit and vegetables per day, 3 of which should be vegetables and 2 fruits.

This salad includes 2 servings of vegetables, contributing to their 5+ a day. Vegetables include a variety of essential vitamins, like vitamin C ~~from~~ which helps keep your immune system strong and helps the healing process, which is super important to Tahlia's family to keep their immunity strong to fight bugs so they can continue to play sport. The carrot also provides vitamin A which helps

vision and the production of white blood cells which also keep up their immunity. B vitamins are also included in the salad which help release energy from foods which is important to Tahlia and her family's well-being because it keeps them going in sports games. ~~Preparing a~~ Most importantly the vegetables provide fibre which keeps bowel movements regular and prevents the family from getting bowel cancer in the future. By preparing ~~the~~ salad rather than cooking veges it doesn't take too long and can easily be done while waiting for the meat and pasta to cook. Not cooking the vegetables also means no important vitamins, especially the water soluble vitamins C and B, ~~to be any~~ are lost by the process of cooking and being evaporated away. Adding Cheese to the pasta and meat at the end is also a good way to add calcium. Cheese is a dairy product and is important because it includes calcium and fat, as well as the fat soluble vitamins (DEKA). The FNG recommend ~~at~~ 3 servings of dairy products per day and they recommend choosing low fat dairy products. Edam cheese is a good source of cheese because it's low in fat but still includes calcium. The glass of milk with the meal also contributes to the 3 dairy servings per day. Milk too contains calcium and fat. Calcium is essential to anyone's diet, particularly growing teenagers, because it helps build healthy bones which prevents from osteoporosis in the future. Tahlia and Jake's peak bone mass has also not yet been reached so it's important they build their bones as strong as they can, which will help them so they can continue to play sport in the future. The fat in the milk is also important to provide the family with energy for their sports →

07

Extra space if required.  
Write the question part(s) if applicable.

QUESTION  
PART

Ci source of energy. Energy is important for Tahlia and her family because they are all active and need energy to keep them going.

2bii can't play sports to the best of their ability so it's important they have enough iron to keep them at their best.

2c ii practices and to allow them to absorb the fat soluble vitamins. Milk also provides protein which is important for Tahlias family's physical well-being. Protein helps with the growth and the repairing of tissues and muscles which is important for repairing their bodies after sport. The protein also provides them with energy to keep them going at the sport practices. These vitamins & nutrients all work together to help create a strong immune system and to have healthy bones, having a beneficial impact on their physical well-being.

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# Annotated Exemplar

Excellence exemplar 2017

Q	Grade score	Annotation
1	08	<p>The candidate demonstrates comprehensive knowledge of both nutritional and promotional features. In part (c) (ii), the candidate identifies specific nutrient quantity recommendations, e.g. sugar should be less than 10g per 100g, and states the correct FNG – choose foods low in fat and sugar. They identified that sugar provides a quick burst of energy, but focused their answer on the negatives associated with a diet high in sugar. The candidate identifies that this bar was the highest in fat and correctly links this to the nuts and seeds, differentiating between saturated and unsaturated fats. The candidate also identifies an important function of fat – absorption of fat soluble vitamins A, D, E, and K, and gives a thorough answer on the negative effects of a diet high in fat.</p>
2	07	<p>The candidate consistently demonstrates in-depth knowledge when explaining how and why the nutritional and promotional features given influence food choice. The candidate demonstrates a high level of nutritional knowledge when answering part (b) (ii) about iron. In part (c) (ii), the candidate focuses on the additional foods (salad) added to the meal. The candidate identifies a range of vitamins the salad provides, and correctly explains the function of each (Vitamin C, A, B, and fibre). The candidate also discusses how quick it is to prepare a salad over cooking vegetables, and explains how this helps to retain water soluble vitamins. The candidate also discusses relevant FNGs and recommended servings of each food group.</p>