

Students name.....

Assessment Task: Food Product Development

This booklet is due on the 3rd July. Submit to your teacher in G1 before roll call.

Design and develop a food product for a specific need: Breakfast on the Go!



Food Order due: Week 8: in class

Prototype Practical: Week 10 in double lesson

Longo – Wednesday 3rd July

Bolzan – Thursday 4th July

Steps in the food development process

1. Design brief: based on project aims and development criteria
2. Idea generation and screening
3. Market research
4. Evaluation
5. Product design specifications
6. Feasibility study
7. Production process development
8. Development of prototype
9. Testing the product prototype
10. Marketing plans

- You will complete the task using this assessment task booklet “**Food Product Development**”.
- The booklet will help guide you through the food development process and help with the completion of your tasks
- Use your booklet to document your information and you may add extra pages if required.

1. DESIGN BRIEF (based on project aims and development criteria):

Using the information on the previous page, develop a suitable design brief to work from. You need to state specifically the needs of the product and any constraints that exist.

2. COLLECTION OF BACKGROUND INFORMATION

What type of information will you need to collect, in order to complete this task correctly?

List your ideas. These may be: nutrition, food preparation techniques, packaging, advertising, lifestyle of the type of people purchasing). Detailed information should be included.

3. SCREENING IDEAS

Develop more than one possible idea of a suitable healthy food. (Make a one-page detailed description of each idea. Include sketches of how the product will appear both in and out of the package. You may also give each food idea a name. Complete and document market research on these items, to decide which the best product to go with is.)

4. EVALUATION - Analyse the above screening activity.

Which specific product have you chosen? (Use the name you intend to use.)

Give a brief description of the product, and why it has been selected.

5. DETAIL YOUR PRODUCT DESIGN SPECIFICATIONS

6. FEASIBILITY STUDY FOR YOUR PRODUCT

Detail the cost of ingredients. Define a feasibility study and explain the importance of this in relation to your design task- development of a new food product

7. PRODUCTION PROCESS DEVELOPMENT

Using a flow chart, outline all the steps in the production of your product, with the appropriate symbols. Include raw materials, methods of processing, processing equipment and quality control measures.

8. DEVELOPMENT OF PROTOTYPE

This will require several trials until a satisfactory prototype is developed. You will need to keep details of your prototype development including any modifications or alterations made to the product specifications.

9. TESTING PRODUCT PROTOTYPE

This may include sensory evaluation, consumer testing, packaging tests, storage trials and marketing plans. Detailed results and a written evaluation drawn from the testing of your product prototype should be included.

10. MARKETING PLANS

This should include: product planning, a price structure, a place and distribution system and a promotional program.

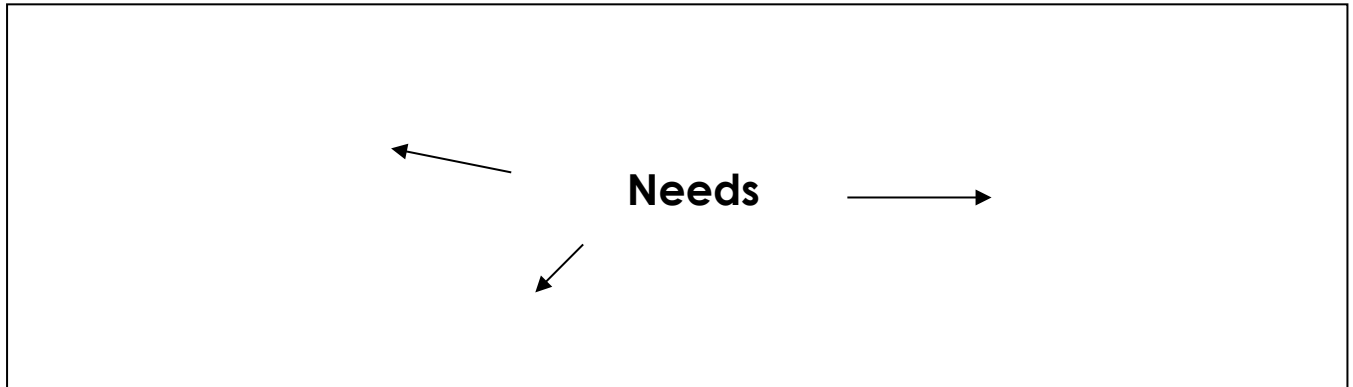
Analysis of the task (refer to your assessment notification)

Design and develop a food product for a specific need: Breakfast on the Go!

Which criteria are you going to focus on for the task?

.....
.....

Consider- the specific need? And the type of food product that needs to be developed to meet this need.



Limitations and constraints

.....
.....
.....
.....

When you have analysed the tasks write your design brief – should relate to the design task

1. DESIGN BRIEF

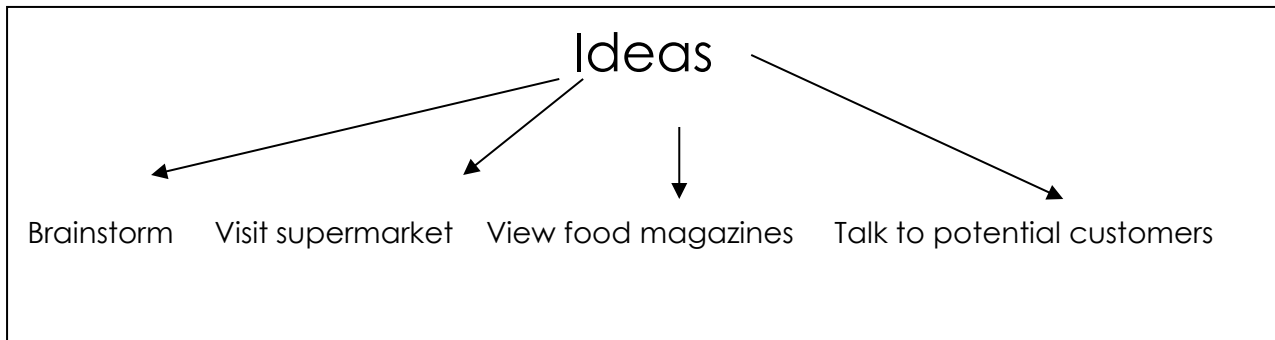
2 marks

.....
.....
.....

2. Idea generation COLLECTION OF BACKGROUND INFORMATION

10 marks

What type of information will you need to collect, in order to complete this task correctly?



a) Brainstorm - List your ideas. These may be: nutrition, food preparation techniques, packaging, advertising, lifestyle of the type of people purchasing).

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

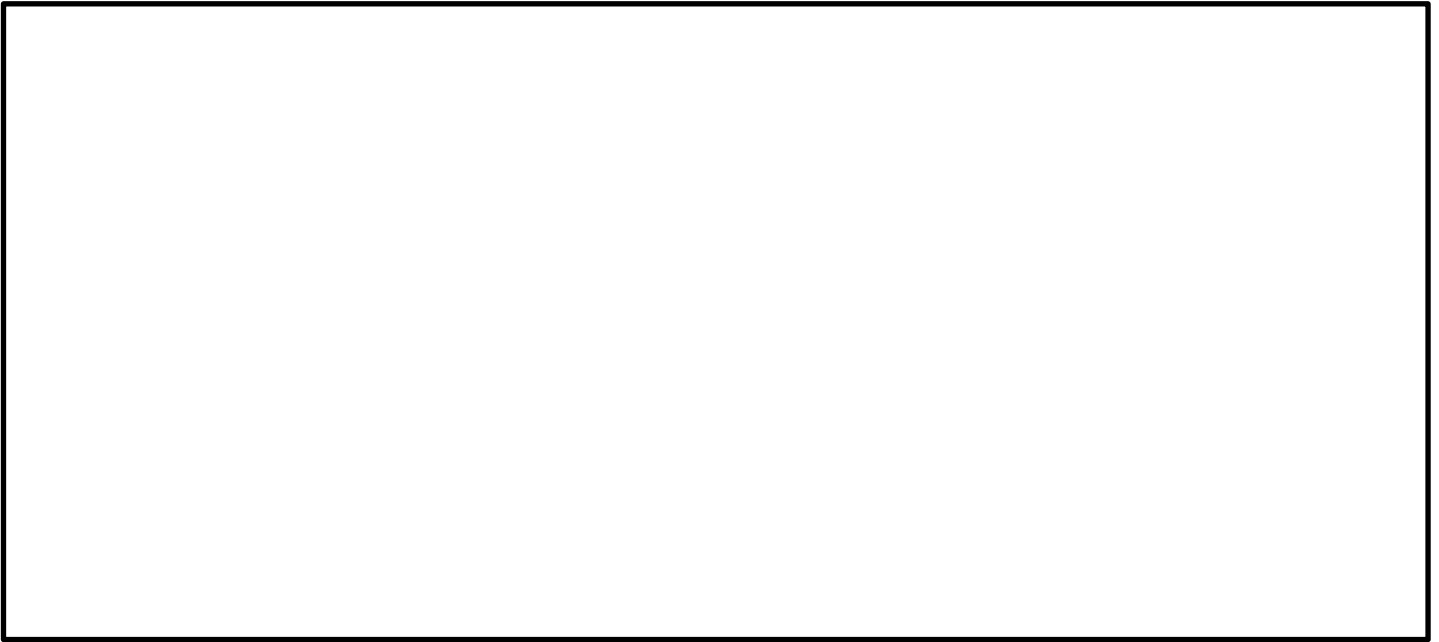
.....

.....

.....

.....

b) Visit websites/shops. Select three existing “breakfast on the go” food products. Take a photo of them and stick them in the boxes below. Discuss the potential clients and driver(s) for each idea and why they are successful.



.....

.....

.....

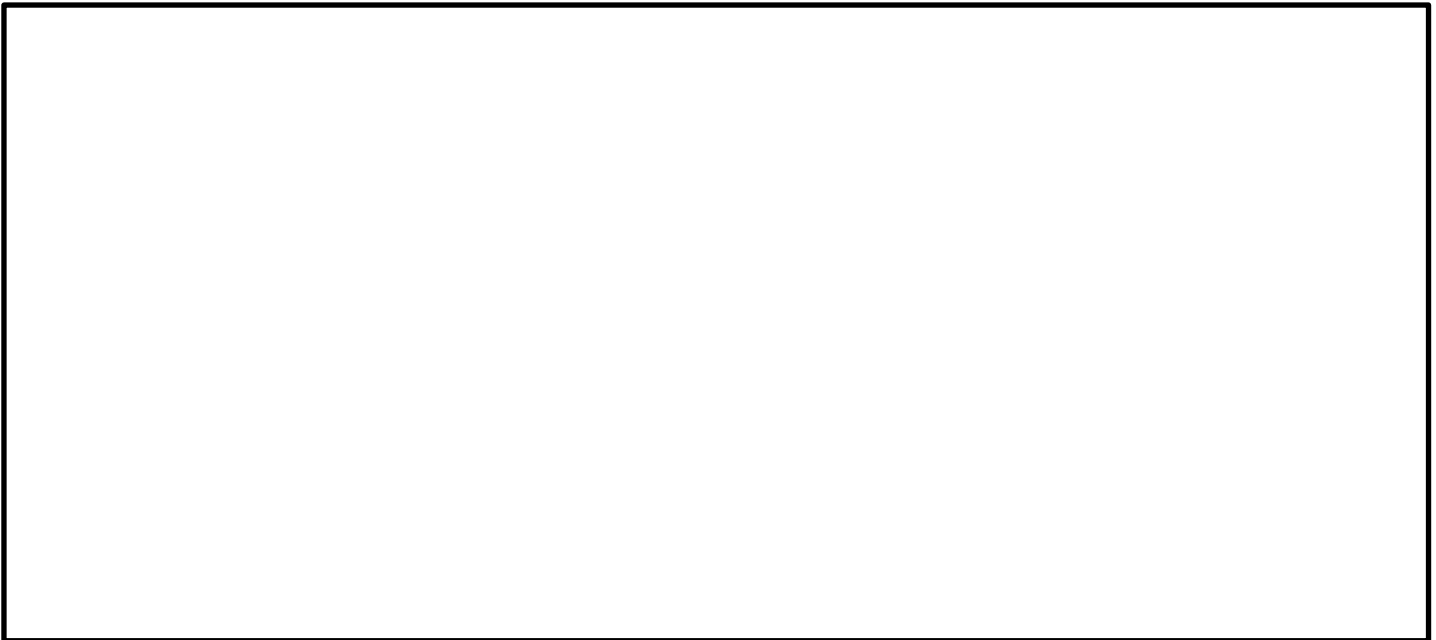
.....

.....

.....

.....

.....



.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

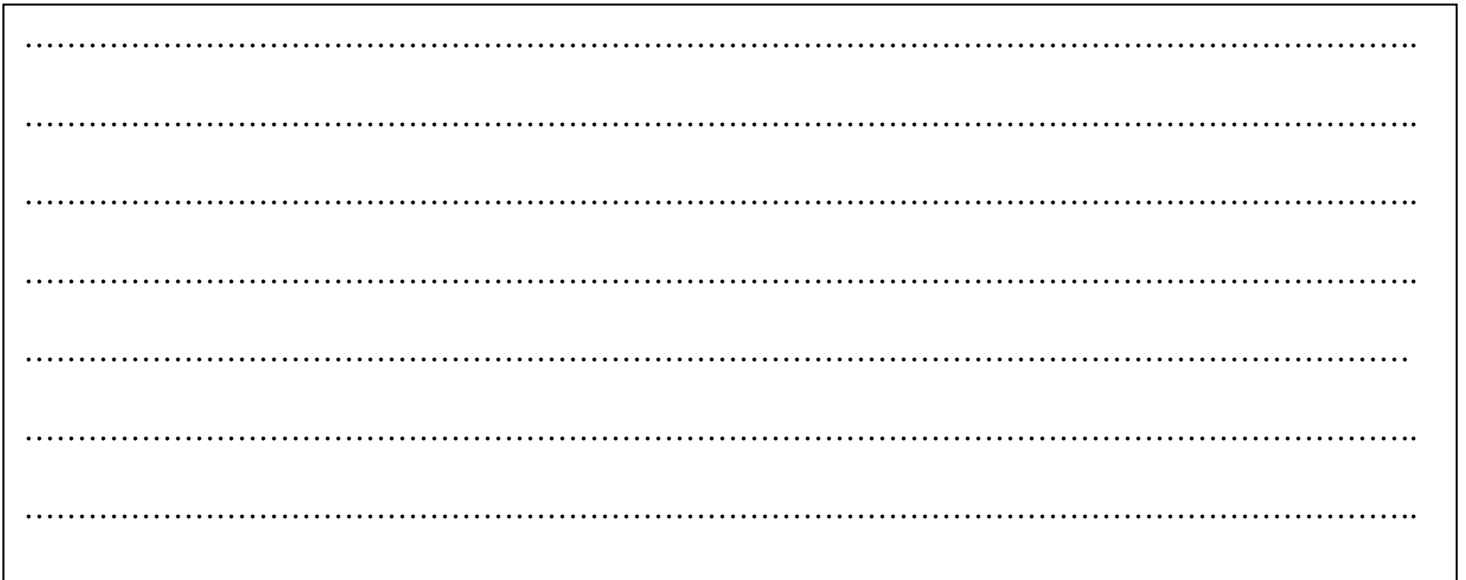
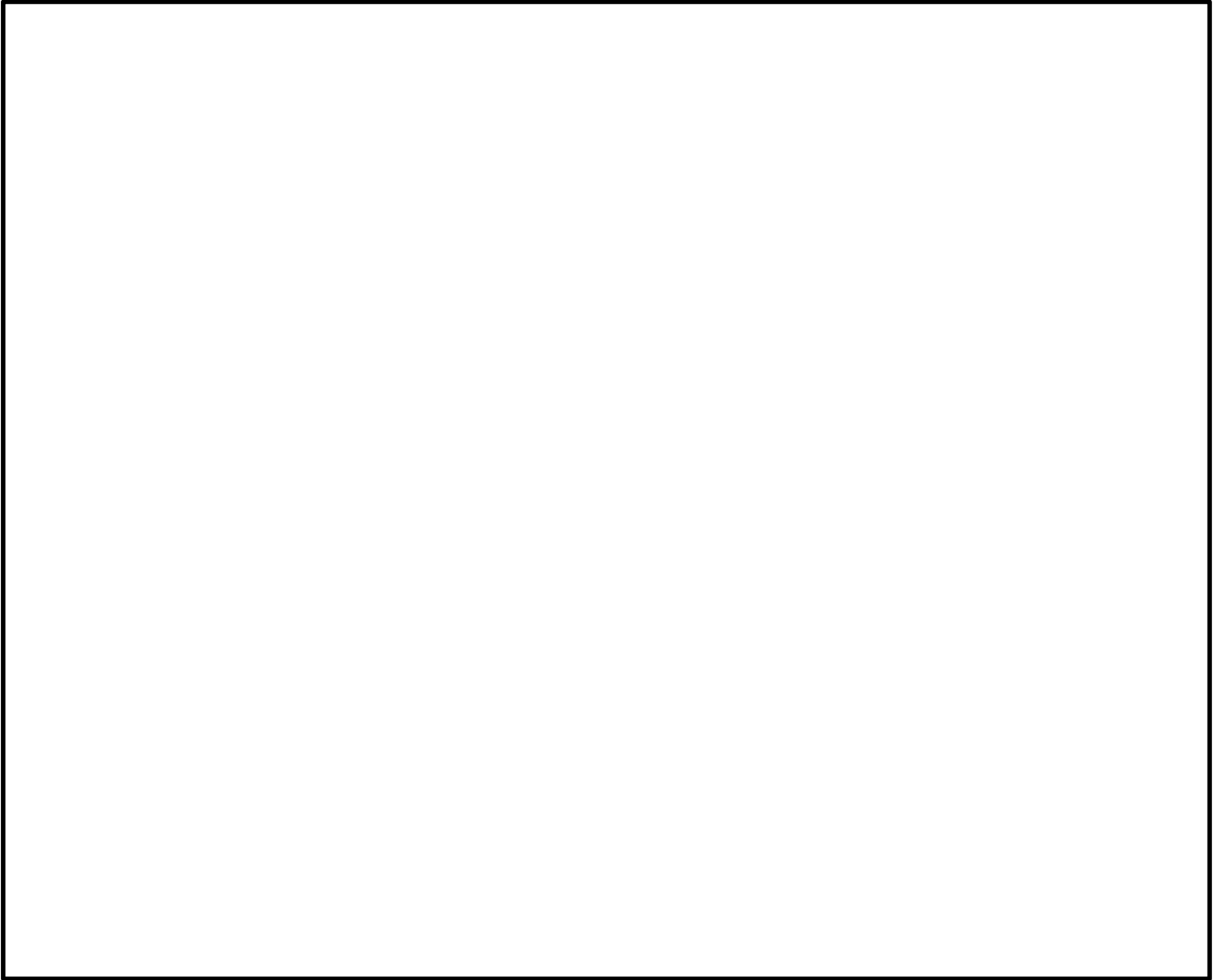
.....

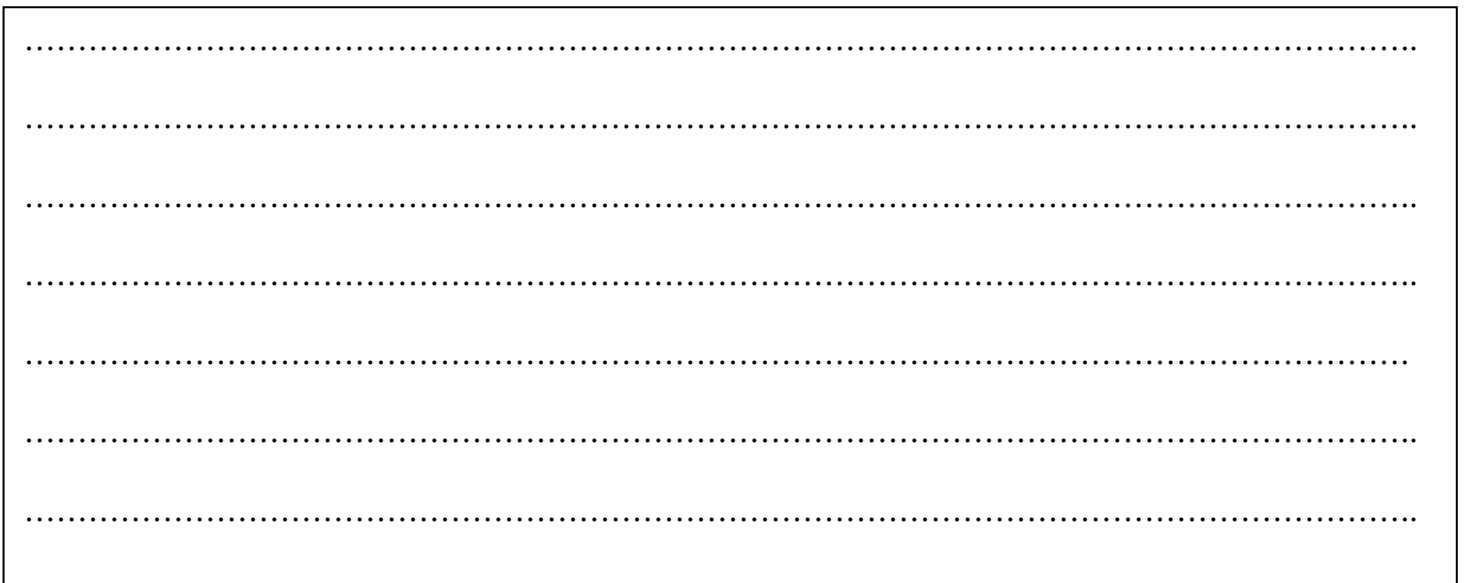
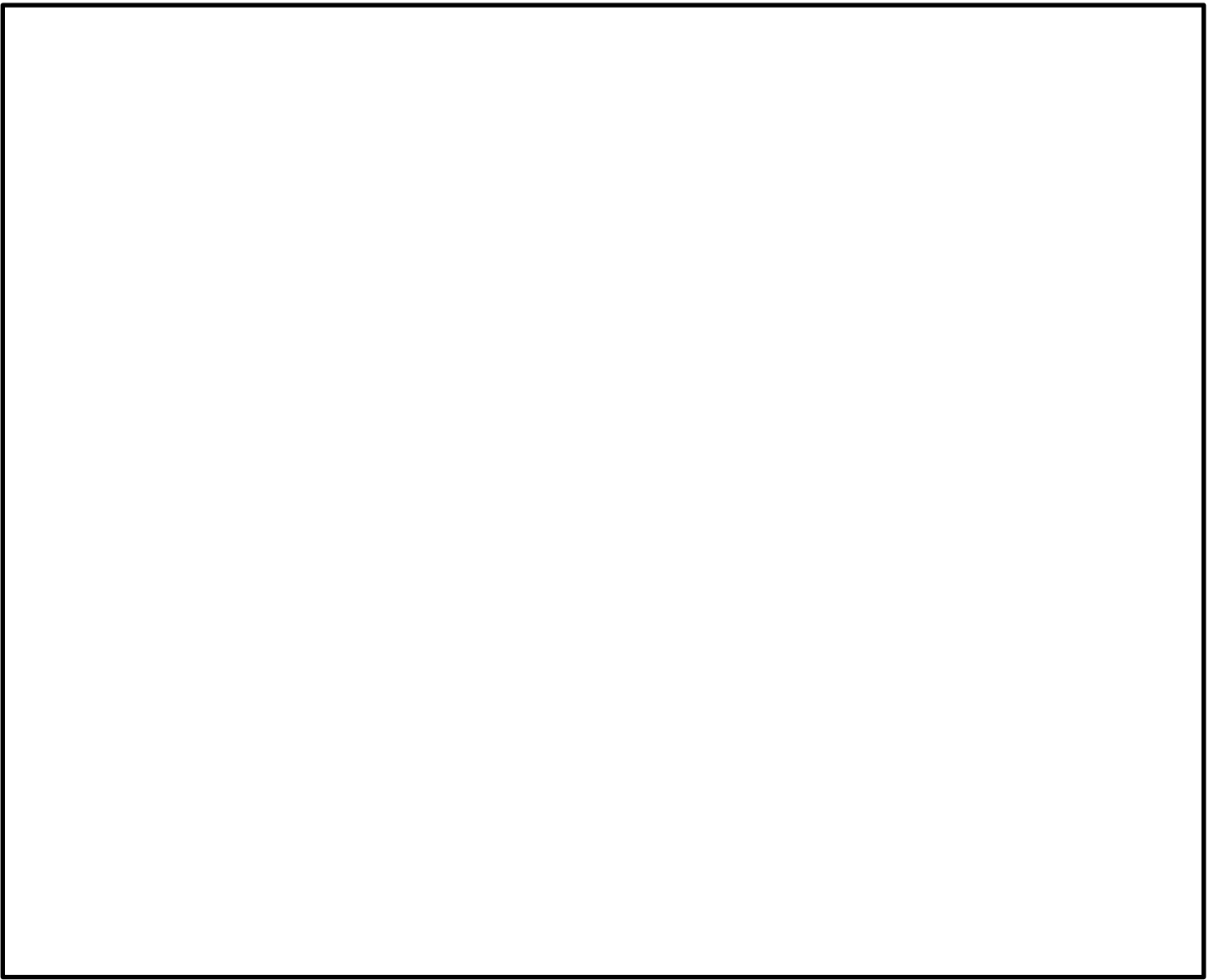
.....

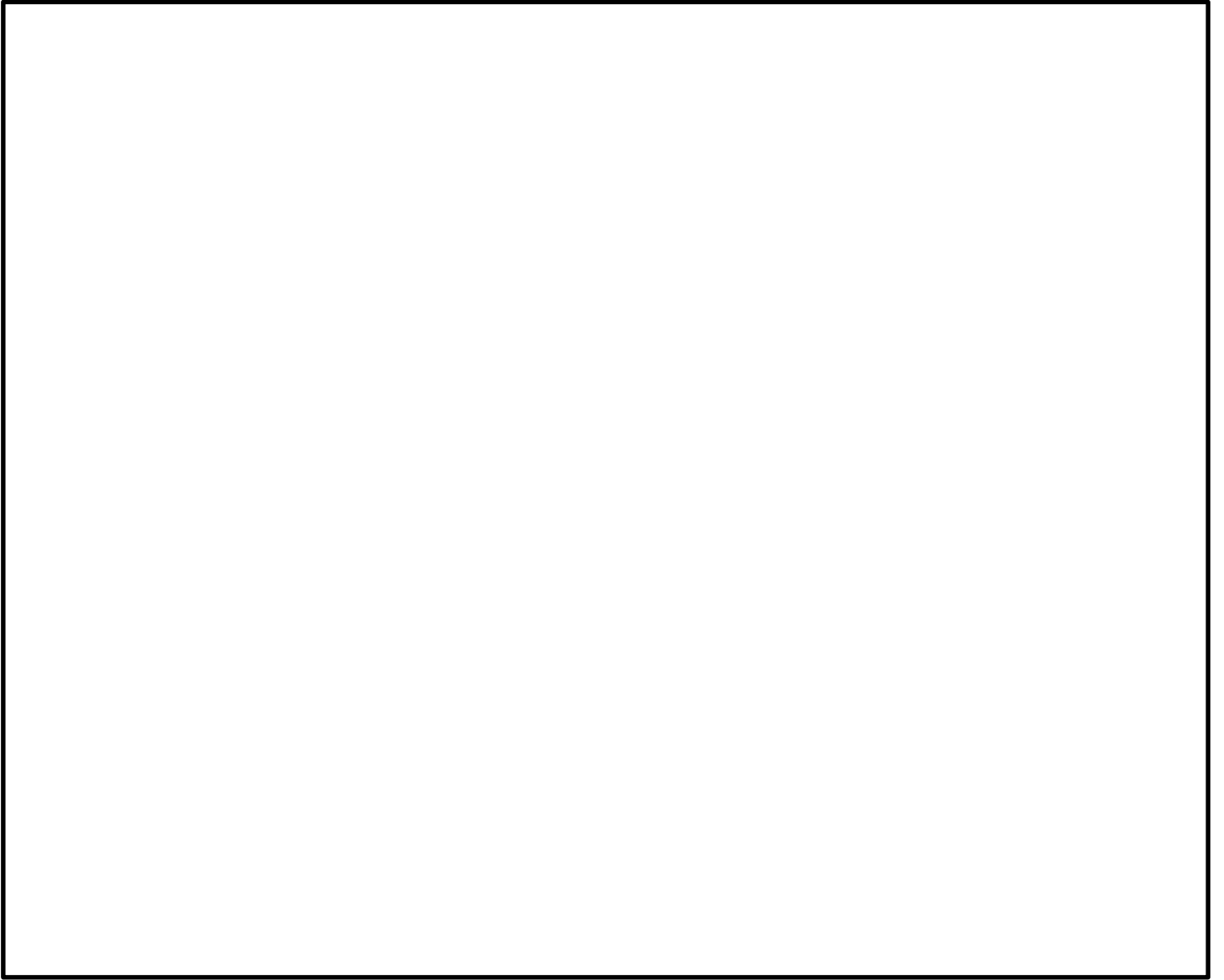
.....

.....

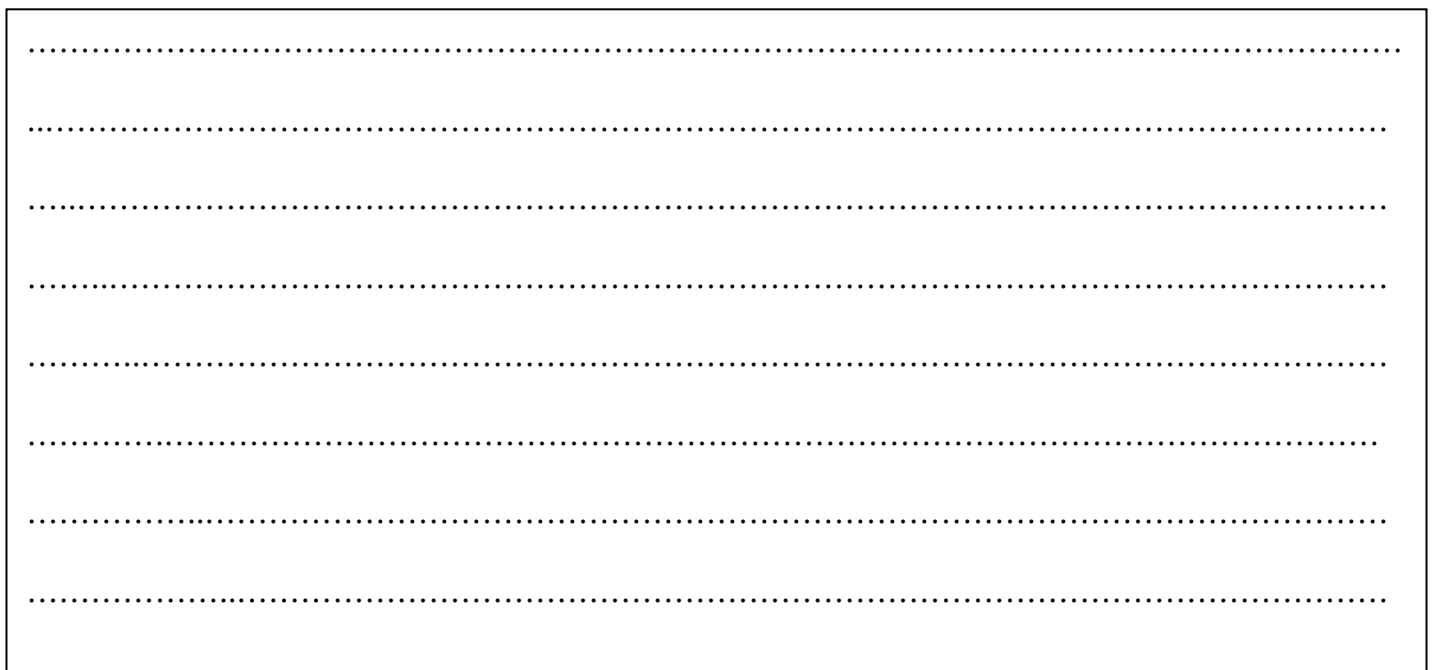

c) Search through magazines or the internet for three possible recipes. (They do not need to be the final idea). Glue the recipes in the space below and evaluate the suitability for the design task using the PMI (positive, Minus, Interesting) principle.







d) Survey 5 people about their breakfast food needs. Minimum 5 questions. Glue a copy of the survey in the box below. Discuss your findings on the lines below. Include the completed surveys with the submission of the task.



3. SCREENING IDEAS

6 marks

Develop more than one possible idea of a suitable healthy breakfast food. Remember, it must be suitable to consume 'On the Go'

(Make a one-page detailed description of each idea. Include sketches of how the product will appear out of the package. Include a paragraph explanation on what the product is and who it is aimed at.

Idea 1

Idea 2

Constraints: There will be some constraints you will need to consider before selecting your best idea- refer to constraints in table in resource booklet.

Discuss some of the constraints that may impact on your food company.

2 marks

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Complete a sample screening checklist for your food product type

Factors that could present a constraint if absent	Idea 1	Idea 2
Skills		
Recipe for making		
Equipment that can produce the desired characteristics		
Availability of appropriate packaging		
Ingredients supplier		
Time for development		
A Market		
A marketing strategy to overcome competitors		
Distribution networks		

Select your best idea from the generated ideas: (which idea will you go with?)

.....

.....

Screening Ideas (continued) - Complete and document market research

Market research

Market research is an organised way of asking consumers of the likelihood of accepting new food product concepts.

Market research describes a particular market segment in two ways:

1. According to the physical features such as:
 - The size of the market
 - Demographics- age gender, family size, income levels and education
 - Geographic location – trends in the population, movement and lifestyles in particular areas (for example many young families in a subdivision- new housing estate)

2. According to consumer purchasing behaviour:
 - Reasons for buying- for special occasions or daily use
 - Cultural and social pressures- beliefs customs and attitudes
 - Shopping times- time of day/week/year
 - Shopping; location and method- shopping in supermarkets or convenience stores: shopping in person over the phone or on line
 - The benefits associated with the food- status or prestige; best quality or reliability and nutritional value
 - Frequency of product use- light (occasional) medium or heavy(regular)
 - The degree of brand loyalty- loyalty to a brand when a similar item is on special

Describe the market segment your food product is targeted to. 2 marks

.....

.....

.....

.....

.....

Conducting market research

To collect information, you will use primary and secondary research methods:

- **Primary research** (data collected from the consumer)
This may include observation, focus groups or surveys.

- **Secondary research** (investigating what others have found in their primary research)

This may include periodicals, e.g. choice magazine, Australian Bureau of statistics, books commercial data from professional organisations such as Nutrition Australia.

Outline two types of market research that could be conducted for this design brief.

4 marks

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4. EVALUATION - Analyse all the screening activities.

3 marks

- a) Which specific product have you chosen? (Use the name you intend to use.)
- b) Give a brief description of the product, and why it has been selected.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

5. Product specification

8 marks

Product specification is an accurate and comprehensive description of what the manufacturer plans to deliver. This would include;

- List of raw material- ingredients
- Quantity of each raw material required for one pizza
- Packaging materials
- Labelling requirements
- Storage conditions
- Recommended shelf life

Complete a production specification for your food product for each item listed in the table below.

Product specifications	
Raw materials required 2 marks	
Packaging materials 2 marks	
Labelling requirements – what needs to go on the label?? 2 marks	
Storage conditions 1 mark	
Recommended shelf life 1 mark	

Produce 2 possible packaging ideas. In the spaces below provided a detailed sketch and description of the packaging and its functions. Include front, back and side views and include colours in your design. These sketches can be done by hand or on the computer.

Idea One

Description:

Idea Two

Description:

Creation of Packaging:

6 marks

Choose one of the packaging ideas featured above and create it. The packaging does not need to be to scale, however it does need to closely resemble materials that would be used. Remember to include brand name, nutrition panel and anything else that is required on a label!!

Define a feasibility study and explain the importance of this in relation to your design task-development of a new food product. Consider both the financial and technical feasibility in relation to your product. **4 marks**

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

7. Production Process Development

8 marks

Using a flow chart outline the steps involved in the production of your new food product, using the appropriate symbols (refer to unit food manufacture- flow process charts if you can't remember)
Identify raw materials, methods of process, processing equipment and quality control measures

8. Development of a prototype (practical task)

You will be required to develop a prototype of your new food product.

- Developing your prototype: To do this you will need to vary the original recipe.
- For example, you may have a recipe for a walnut and apricot snack bar- (Prototype and control sample)
- A variation may include reducing the amount of sugar of the control sample- original recipe or the use of wholemeal flour over white

Note: A prototype is a trial product and the control sample- is the original recipe

Prototype- Recipe

4 marks

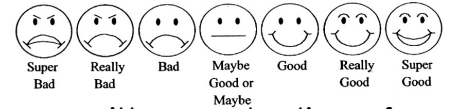
Title:	
Ingredients	Method

9. Testing product prototype- Sensory assessment

14 marks

Testing the product prototype involves conducting tests on the food product. To test the prototype, you will use a sensory test. To be able to do this you will need to organise the following:

- Food samples (contained and numbered)
- Select panellists/ tasters (target market)
- Establish a taste testing location (Food Technology room/ kitchen)
- A method of recording the result from the taste test, For example, a score sheet or hedonic scale.



Once you have conducted your tests you will need to produce a written evaluation of the test results.

Steps to follow for the testing of product prototype

- Development of a record sheet – **the filled-out sheets will need to be handed in with the task.**
- Production of the food sample
- Select and gather food panellists – Done by Ms Longo
- Set up taste testing area
- Set up taste test samples
- Conduct sensory test
- Collate results
- Evaluate results

Stick a blank copy of your sensory test you will use during the sensory/taste test.

Evaluate the results of your sensory assessment.

4 marks

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Describe two types of testing other than sensory testing that can be conducted on your new food product.

Predict how the results of these tests may influence the success of the final product.

6 marks

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

11. Marketing plan

a) Discuss the four organised activities of the marketing mix.

4 marks

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

b) Discuss possible retail outlets for the placement of the new food product

2 marks

.....

.....

.....

.....

c) Propose and justify a promotional program for marketing your new food product.

4 marks

.....

.....

.....

.....

.....

.....