

NAME: \_\_\_\_\_

# HSC ASSESSMENT TASK

# AUSTRALIAN FOOD INDUSTRY

## EMERGING TECHNOLOGIES



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<b>DUE DATE:</b>	

## 9 Content: Food Technology Stage 6 HSC Course

### 9.1 The Australian Food Industry

The Australian food industry has developed in response to changes in our physical, social, technological, economic and political environment. This is evident in the structure, operations and products of the Australian food industry. The industry contributes significantly to the gross domestic product and is a major employer.

#### Outcomes

A student:

- H1.2 examines the nature and extent of the Australian food industry
- H1.4 evaluates the impact of the operation of an organisation within the Australian food industry on the individual, society and environment
- H3.1 investigates operations of one organisation within the Australian food industry.

This assessment task is designed to help you to demonstrate the indicated outcomes and dot points from the syllabus.

Students learn about:	Students learn to:
<b>Sectors of the Australian food industry</b> <ul style="list-style-type: none"><li>• sectors of the agri-food chain in the Australian food industry, including agriculture and fisheries, food processing/manufacturing, food service and catering, food retail</li><li>• emerging technologies in food production, manufacturing and packaging including biotechnology in genetically modified foods, ecologically sustainable production methods, such as organic farming</li></ul>	<ul style="list-style-type: none"><li>• identify sectors within the Australian food industry</li><li>• plan and prepare foods/meals that reflect sectors of the Australian food industry</li><li>• investigate an emerging technology in ONE sector of the Australian food industry</li><li>• discuss the potential risks and benefits of using emerging technologies in food production and manufacture</li></ul>

**MARKING CRITERIA**

<b>Q1</b>	No attempt = 0 Correctly identifies an appropriate emerging technology = 1 Correctly identifies an appropriate emerging technology and provides a sound description = 3 Correctly identifies an appropriate emerging technology and provides an extensive description = 4	<b>/4</b>
<b>Q2</b>	Correctly identifies the relevant sector of the agri-food chain = 1 Identifies and describes the sector in basic terms = 2 Provides sound description and identification of sector = 3 Provides Thorough/extensive description and identification of sector = 4	<b>/4</b>
<b>Q3</b>	No attempt = 0 Provides limited explanation for the reasons for the development of the chosen emerging technology = 1 Provides basic explanation for the reasons for the development of the chosen emerging technology = 2 Provides sound explanation for the reasons for the development of the chosen emerging technology = 3 Provides thorough explanation for the reasons for the development of the chosen emerging technology = 4 Provides extensive explanation for the reasons for the development of the chosen emerging technology = 5	<b>/5</b>
<b>Q4</b>	No attempt = 0 Provides limited discussion of short-term or long-term impacts only = 1 - 2 Provides sound discussion of short-term or long-term impacts only = 3 - 4 Provides extensive discussion of short-term or long-term impacts only = 5 - 6 Provides elementary discussion of short-term AND long-term impacts = 7 - 8 Provides sound discussion of short-term AND long-term impacts = 9 - 10 Provides extensive discussion of short-term AND long-term impacts = 11 - 12	<b>/12</b>
<b>Q5</b>	No attempt = 0 Provides limited discussion of the advantages OR disadvantages of this technology on the environment/society and individual = 1 - 2 Provides sound discussion of the advantages OR disadvantages of this technology on the environment/society and individual = 3 - 4 Provides extensive discussion of the advantages OR disadvantages of this technology on the environment/society and individual = 5 Provides elementary discussion of the advantages AND disadvantages of this technology on the environment/society and individual = 6 - 7 Provides sound discussion of the advantages AND disadvantages of this technology on the environment/society and individual = 8 - 9 Provides extensive discussion of the advantages AND disadvantages of this technology on the environment/society and individual = 10	<b>/10</b>
<b>Q6</b>	Provides limited/no bibliography and limited discussion of reliability and validity of both resources = 0-1 Provides basic bibliography (1 or more errors in formatting and basic discussion of reliability and validity of two or less resources = 2  Provides sound bibliography and discussion of reliability and validity of two or less resources = 3 Provides thorough bibliography and discussion of reliability and validity of two = 4 Provides extensive bibliography and discussion of reliability and validity of two = 5	<b>/5</b>

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		<b>TOTAL</b>	<b>/40</b>
		<b>GRADE</b>	

**TASK:** Investigate an Emerging Technology in one sector of the Australian food industry. To do this follow the steps below.

**STEP ONE:** Choose an Emerging Technology either from the below list or from your own research. If you want to use one from your own research, please discuss your option with your teacher before completing the assignment.

### **List of emerging technologies:**

- New technology at Woolworths - <https://tinyurl.com/y7hlrrj7>
- Milk preserving technique - <https://tinyurl.com/ycl8jg4d>
- App to text fruit ripeness - <https://tinyurl.com/y8w5go9v>
- Teleporting flavour - <https://tinyurl.com/yc6allnx>
- Indoor farming - <https://boweryfarming.com/how-it-works>
- Crop-protecting greenhouses - <https://tinyurl.com/ybotdzka>
- Drone food delivery - <https://wing.com/australia/canberra/>
- Colour changing food labels - <https://tinyurl.com/ybe4aqovf>
- Edible cutlery - <https://www.youtube.com/watch?v=r4Cc5zmy0eY>
- Light-blocking food packaging - <https://tinyurl.com/ycgvzoj5>
- In vitro meat - <https://www.wired.com/story/lab-grown-meat/>
- Edible water pods – <https://emagazine.com/edible-water-pods/>
- Woolworths Scan and Go – <https://tinyurl.com/y9u9r459>
- 3D food printing - <https://tinyurl.com/ybjj5x76>
- Corn Plastic Packaging - <https://tinyurl.com/y8t9zo32>
- Robot Waiters - <https://tinyurl.com/y9agkopl>
- Laser Food Labelling - [https://www.youtube.com/watch?v=Q\\_Os55EQ\\_ow](https://www.youtube.com/watch?v=Q_Os55EQ_ow)
- An emerging technology of your own choosing (please discuss with your teacher)

STEP TWO: Conduct your own research to gain a deep understanding of your chosen technology. Show evidence of your research by submitting notes, other website links you have used/taken on your chosen emerging technology.

STEP THREE: Complete the questions.

STEP FOUR: **Submit** this task via **CANVAS** by the due date:

**TERM 1: WEEK 8, TUESDAY 14<sup>th</sup> MARCH, 2023 (BEFORE 8:25 AM)**

**NESA KEY TERMS FOR THIS TASK:**

**Explain**: Relate cause and effect; make the relationships between things evident; provide why and/or how.

**Discuss**: Identify issues and provide points for and/or against.

**Describe**: Provide characteristics and features.

**Predict**: Suggest what may happen based on available information.











6. Bibliography and Annotation: **(5 marks)**

A) Provide evidence of additional research undertaken in the form of a bibliography. **(1)**

(See school diary for correct bibliography formatting)

B) Annotate two references/resources from the bibliography for reliability and suitability of content. **(4)**

EG This resource (title, Author, link) was suitable because..... This resource was reliable because... it came from a reputable source/academic paper, journal article...

For more information view this link:

<https://www.bibliography.com/examples/annotated-bibliography-writing-guide-with-examples/>

**DO YOUR SOURCES PASS THE CRAAP Test?**

**Current**  
When was the source written? Does it need to be up-to-date for your research?

**Relevant**  
Does the information relate to your topic? Does it answer your question?

**Authoritative**  
Who is the author or source? Do they have the authority to write about the topic?

**Accurate**  
Are you able to verify the information in another source? Does the author provide evidence of their findings?

**Purposeful**  
What is the reason for publishing the information? Is it fact, opinion, persuasion or meant to sell a product?

**Bibliography.com**  
MAKING RESEARCH SIMPLY EASY

