

*Add the*  
**MIGHTY MUSHIE**



# A Focus on Healthy Eating and Preparation

## TEACHER GUIDE

LESSON 4

YEAR 9–10

This resource has been developed by:



Primary Industries Education  
Foundation Australia



**AMGA**  
Australian Mushroom Growers' Assoc.

*Australian*  
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## LESSON 4

# A Focus on Healthy Eating and Preparation

### > LEARNING AREA

Design and Technologies (Year 9-10)

### > AUSTRALIAN CURRICULUM CONTENT


Analyse and make judgements on how the sensory and functional properties of food influence the design and preparation of sustainable food solutions for healthy eating (**AC9TDE10K05**)

### > LESSON OBJECTIVE

**Students will learn about:**

- The relationship between mushrooms and preservation methods.
- Characteristics of mushrooms that relate to sensory and nutritional data.
- Methods of preparation, cooking, presenting, and storage with a focus on preventing food spoilage.

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# Resources and Equipment

- 1. Access to laptop/digital devices
- 2. **Worksheet 4.1 – Munching Mushrooms Survey**
- 3. **Worksheet 4.2 – A Healthy Food Choice**
- 4. **Worksheet 4.3 – Scavenger Hunt and Crossword**
- 5. **Worksheet 4.4 – Mushroom Nutritional Information**
- 6. **Worksheet 4.5 – Mushroom Nutritional and Sensory Information**
- 7. **Worksheet 4.6 – Mushroom Storage and Preservation**
- 8. **Worksheet 4.7 – Cooking Mushrooms**
- 9. **Worksheet 4.8 – Mushroom Week**

- **Additional Reading/Resources**

- 30 Amazing Mushroom Facts To Share With Your Friends  
<https://grocycle.com/mushroom-facts/>



## ATTRIBUTION, CREDIT & SHARING



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# Lesson Guide

## Students will:

- Learn how mushrooms are preserved and the effect of preservation on taste and cooking techniques.
- Understand the characteristics of taste that relate to different types of mushrooms and their uses in cooking.
- Design a series of educational bookmarks detailing how mushrooms should be used to prevent spoilage throughout the preparation, cooking, presenting, and storage phases.

## > STARTER

Digitally display **Worksheet 4.1 – Munching Mushrooms Survey**. Conduct a class survey to discover how many students eat mushrooms and what they know about the health benefits of mushrooms.

## > MAIN

### a) Mushroom Fact Finding:

1. Distribute **Worksheet 4.2 – A Healthy Food Choice** and **Worksheet 4.3 – Scavenger Hunt And Crossword**.
2. Explain to students that the resources linked to the worksheets will help them to learn more about the health benefits of mushrooms.
3. **Worksheet 4.2 – A Healthy Food Choice** aims to summarise some of the nutritional benefits of mushrooms. **Worksheet 4.3 – Scavenger Hunt and Crossword** challenges students to research information about mushrooms and apply their knowledge to solve the crossword.

*Optional: set the crossword as a timed challenge with a reward for students who can solve it the fastest.*

4. Links:

- <https://australianmushrooms.com.au/health/>
- <https://australianmushroomgrowers.com.au/nutrition/>

**Answers** 

## b) Mushroom Nutritional Information:

1. Students compare the nutritional information of mushrooms with three other types of food.
2. Distribute **Worksheet 4.4 – Mushroom Nutritional Information**.
3. Students scan the QR code or go to the link <https://australianmushrooms.com.au/health/> to extract the relevant data on mushroom nutrition.
4. Remind students that it is important to extract the data for the daily intake percentage and the amount **contained in 100 g**. This means that comparisons between the food groups are controlled.

### **Answers**

5. After completing step 3, students research the nutritional information for a meat of their choice, a vegetable of their choice, and another food of their choice, for example, their favourite breakfast cereal.
6. Distribute **Worksheet 4.5 – Mushroom Nutritional and Sensory Information**.
7. Direct students to <https://www.eatforhealth.gov.au/> to learn more about what constitutes a healthy balanced diet. Use information from the *eEat For Health* website and other resources to answer the questions on the worksheet.

### **Answers**

## c) Storing and Preserving Mushrooms:

1. Distribute **Worksheet 4.6 – Mushroom Storage and Preservation**.
2. Students scan the QR codes or navigate to the websites on the worksheet.
3. Direct students to the [Australian Mushroom Growers Association](http://www.australianmushroomgrowers.com.au) website to learn how fresh mushrooms should be stored.
4. The [GroCycle](http://www.grocycle.com.au) website also has useful information on how mushrooms can be preserved and stored. However, a simple internet search will also provide relevant information for students.
5. Students select and research one method of preserving and storing mushrooms.
6. Students complete the key points on their worksheet.
7. Using the chosen preservation/storage method in step 5, students continue individual research to complete an informational brochure highlighting the key points about their method of preservation and storage.

8. Students include:
  - Method of preservation.
  - Type of mushrooms their chosen method suits.
  - How long mushrooms can be preserved using this method.
  - How the mushrooms are then stored.
9. Students create either a soft or hard copy brochure.

### d) Cooking Mushrooms:

1. Distribute **Worksheet 4.7 – Cooking Mushrooms**.
2. Students scan the QR codes or navigate to the [Australian Mushroom Growers Association](#) and [Australian Mushrooms](#) websites.
3. Students conduct research and learn about mushroom recipes, selecting one recipe to record then share with their peers. Students explain how the characteristics of taste and texture of different types of mushrooms relate to their uses in cooking for their recipe.
4. Distribute **Worksheet 4.8 – Mushroom Week**.
5. Students research international mushroom recipes that are considered ‘traditional’ to different areas of the world.
6. Students select a recipe for each day of the week from a different region in the world that they would like to cook for ‘mushroom week’ and record it on the worksheet.

For example:

- Sunday – Oceania
  - Monday – Indonesia
  - Tuesday – Asia
  - Wednesday – South America
  - Thursday – North America
  - Friday – Europe
  - Saturday – Africa
7. Students share their ‘mushroom week’ recipes with their peers.

## ➤ PLENARY

### e) Just a Minute:

Can students talk convincingly on mushroom nutrition, preservation and cooking for a minute without hesitation, repetition, or deviation?

# Student Resources

1. [Worksheet 4.1 – Munching Mushrooms Survey](#)
2. [Worksheet 4.2 – A Healthy Food Choice](#)
3. [Worksheet 4.3 – Scavenger Hunt and Crossword](#)
4. [Worksheet 4.4 – Mushroom Nutritional Information](#)
5. [Worksheet 4.5 – Mushroom Nutritional and Sensory Information](#)
6. [Worksheet 4.6 – Mushroom Storage and Preservation](#)
7. [Worksheet 4.7 – Cooking Mushrooms](#)
8. [Worksheet 4.8 – Mushroom Week](#)



This resource has been developed by:

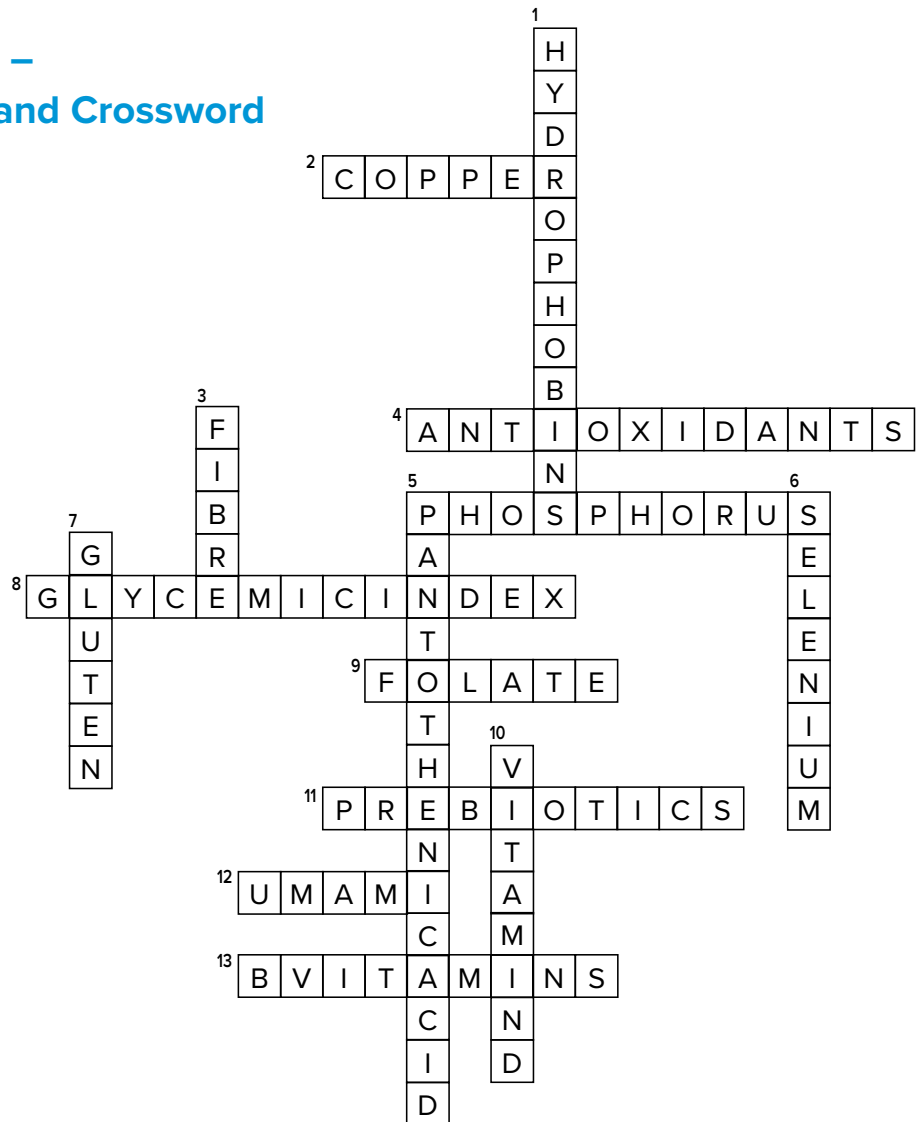
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# Answers

## WORKSHEET 4.2 – A Healthy Food Choice

- Low in kilojoules
  - Helps you feel full
  - Immune-boosting compounds
  - Gluten free
  - Rich in antioxidants
  - Umami flavour
  - Zero fat or cholesterol

## WORKSHEET 4.3 – Scavenger Hunt and Crossword





# Answers (continued)

## WORKSHEET 4.4 – Mushroom Nutritional Information

Mushroom		
	Avg. Quantity /100g	% Daily Intake
Energy (kj)	86	1
Protein, total (g)	2.3	5
Fat, total (g)	0.4	<1
Carbohydrate, sugars (g)	0	0
Dietary fibre, total (g)	2.7	9
Sodium (mg)	9	<1

## WORKSHEET 4.5 – Mushroom Nutritional And Sensory Information

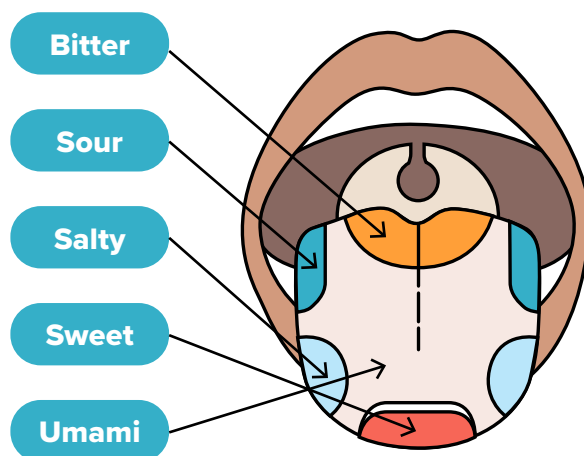
- Answers will vary depending on individual student choices. Suggested key points:
  - Very low in fat and zero cholesterol may help maintain a healthy heart.
  - High levels of antioxidants may boost brain and immune function.
  - Very low salt levels.
  - Low in kilojoules, beneficial for a calorie-controlled diet, and also aids the ‘feeling full’ sensation.

*Students should ensure that they have compared their data between the different food choices. E.g. some meats can be high in saturated fats. These can lead to higher levels of cholesterol and blood pressure.*

(Answers for Worksheet 4.5 continued following page...)

## Answers (continued)

2.



3. Suggested answers:

- High sodium consumption (>2 grams/day, equivalent to 5 g salt/day) and insufficient potassium intake (less than 3.5 grams/day) contribute to high blood pressure and increase the risk of heart disease and stroke.
- The main source of sodium in our diet is salt (although it can come from sodium glutamate) which is used as a condiment in many parts of the world.
- Most people consume too much salt—on average 9–12 grams per day, or around twice the recommended maximum level of intake.
- Salt intake of less than 5 grams per day for adults helps to reduce blood pressure and the risk of cardiovascular disease, stroke, and coronary heart attack. The principal benefit of lowering salt intake is a corresponding reduction in high blood pressure. (World Health Organization, 2020)

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