

Grade 5

Lesson 3

Lesson plan

Lesson theme	Protecting the quality of food	Grade	5
Duration	30 to 40 minutes	Date/week	
Context			
<ul style="list-style-type: none">• Making healthier food choices• Ways in which to improve wellness.			
Linking with previous lesson		Linking with next lesson	
<ul style="list-style-type: none">• Learning how to lead a healthier lifestyle.		<ul style="list-style-type: none">• Learning ways to protect the quality of food.	
Core knowledge			
<ul style="list-style-type: none">• Understanding the concept of 'food additives', and the 3 types of additives: 'preservatives', 'flavourants' and 'colourants.'			
Learning activities and assessment			
Group work:			
<ul style="list-style-type: none">• Learners analyse different food wrappers and packaging so to identify different food additives and why they were used.			
Individual work			
<ul style="list-style-type: none">• Introduce the worksheet for lesson 3.			
Forms of assessment		Resources	
<ul style="list-style-type: none">• Worksheet.		<ul style="list-style-type: none">• Ask the learners to bring along a wrapper of their favourite snack, such as dried fruit, a snack bar, biltong or chocolate• Worksheets.	
Expanded opportunities		Teacher reflection	
<ul style="list-style-type: none">• Encourage learners to investigate what additives they can find in their foods at home.		<ul style="list-style-type: none">• The activities make learners aware of food additives and their purpose, therefore making learners more aware of the quality of the foods they eat.	

Lesson 3: Protecting the quality of food (30 to 40 minutes)

1 Outcomes

By the end of this lesson the learners should be able to:

- Explain what a food additive is and how it can protect the quality of food
- List 3 different types of food additives and give an example of each.

2 Teacher's corner

Food additives

Food additives are added to food and drinks during processing. They may be added to food to enhance its flavour, taste, aroma, colour, texture or appearance, or to preserve the food or drink from becoming spoiled. In the past, food was preserved by adding vinegar, sugar or salt. Today, there are many other additives used to preserve food.

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Manufacturers are allowed to add certain substances, natural or synthetic, to food for the following specific purposes:

- To improve nutritional value: nutrients, including antioxidants, particularly those that may have been lost during processing, might be added to improve food's nutritional value
- To preserve food (make it last longer): examples include preservatives, emulsifiers, stabilisers, anti-caking agents
- To enhance the colour, appearance and flavour of food: examples include colourants and flavourants. These don't necessarily add any nutritional value to food.

Examples of food additives that you may see listed on food labels are:

- Preservatives
 - Sulphites: sulphur dioxide, sodium sulphite and potassium metabisulphate. They are added to food and drinks to prevent browning, control microbial growth and spoilage, modify texture and bleach certain foods
 - Benzoates and parabens: sodium benzoate, benzoic acid and methylparaben. These are used to prevent spoilage of foods by yeasts, fungi, bacteria and other micro-organisms
 - Nitrates: these are used to cure and preserve meats and give them an attractive red colour
- Flavourants
 - Monosodium glutamate (MSG): this is actually a flavour enhancer that brings out the flavour in the food
- Colourants
 - Tartrazine: this is a yellow colourant used as a dye in many foods, drinks and pharmaceutical products.

3 Activities

For lesson 3 you'll need the following equipment:

- Ask the learners to bring along a wrapper of their favourite snack, such as dried fruit, a snack bar, biltong or chocolate
- A copy of the worksheet to hand out to the learners for them to complete the activity in class.

Activity 1: Know your additives (25 to 30 minutes)

- Divide the learners into groups of 3 to 4 so that they can see each other's wrappers and be exposed to a wider variety of packaging
- Tell the learners to identify the additives in each product and investigate whether that additive was used to improve the nutritional value or to improve the quality of the food
- Hand out a worksheet to the learners for them to complete the activity in class.

4 Wrap-up (5 minutes)

Remind the learners of the purpose of food additives, and encourage them to find out which additives the food that they have at home has.

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Name: _____

Worksheet: Grade 5, lesson 3

Task 1: Protecting the quality of food

Answer the following questions

1. What are food additives? _____

2. Why are food additives added to food? _____

3. List 3 types of food additives. _____

4. Draw a line to link the examples of food additives in the right-hand column to the correct group of food additives in the left-hand column.

Preservatives	MSG
	Tatrazine
Flavourants	Benzoates
	Nitrates
Colourants	Sulphites