

Learning objective	Success criteria
To evaluate nutritional content.	- I can use a nutrition calculator. - I can compare nutritional values. - I can make ingredient choices based on nutritional values. - I can modify a recipe to contain different ingredient choices.
Before the lesson	
Have ready <i>Presentation: Range of answers.</i> <i>Presentation: Nutrition information.</i> <i>Presentation: Which has more value?</i> <i>Presentation: Recipe adaptation.</i> - The children's Activity: <i>Recipe changes</i> from Lesson 2: Different choices. - Examples of bolognese packaging from Lesson 2: Different choices. - Photocopies of the nutritional values and ingredient lists from the bolognese packaging (one set per group of two or three). - Devices with spreadsheet and document editing capability (one each – see Main event). - Whiteboards and pens (one each). - Download: Nutritional values calculator. - Download: Simple bolognese recipe. Print in advance - Resource: Simple bolognese recipe (one teacher copy).	
Recap and recall	
Presentation: Range of answers1 Display the <i>Presentation: Range of answers</i> and ask the children which of the ingredients are suitable for spaghetti bolognese. Encourage the children to think about the flavours of each listed ingredient and allow time for paired discussion. The children's responses may include: - Orange and banana are sweet ingredients that do not complement the flavours in the recipe. - Banana is very soft and may not add the right texture to the recipe.	
Attention grabber	
Nutrition information Hand out the children's Activity: <i>Recipe changes</i> from Lesson 2: Different choices and organise the children in the same groups of two or three from the previous lesson.	

Hand out the photocopies of the nutritional values and ingredients list from the bolognese packaging (one set per group) from [Lesson 2: Different choices](#). Display the *Presentation: Nutrition information*, which shows images of nutritional information on food packaging.

Presentation: Nutrition information2

Invite the children to use the presentation to help locate the nutritional values table and ask:

- What are the values for salt? (Answers will vary based on chosen packaging.)
- Which ingredients are different? (Answers will vary based on chosen packaging.)
- Why do you think some of the nutritional values are different? (Changing the ingredients affects the nutritional values.)

Ask the children to look at their ingredients list. Explain that during this lesson, they will join with another group and compare the nutritional values of their ingredient choices.

Main event

Exploring nutritional values

Display the *Download: Nutritional values calculator*. Use the *Resource: Simple bolognese recipe* and add the quantities of ingredients to the calculator under the correct headings.

Increase the quantity of tomatoes to 1000 g. Ask the children how this changed the nutritional values. They might notice:

- Fat changes from 6.2 g per 100 g to 5.5 g per 100 g.
- Carbohydrate (of which sugars) changes from 2.6 g to 2.7 g

Question the children further about the spreadsheet:

- What do the colours mean? (Red is high; amber is to be aware of the amount; green is a low amount.)
- Where would you find these colour codes on food? (On the front of the packet.)
- How did the change to tomato affect the nutritional value? (Being conscious of higher sugar consumption is important.)
- Would more or less fibre provide better nutritional value? (More fibre is considered better nutritional value.)

Ask the children to locate the quantities of each ingredient on their *Activity: Recipe changes* and provide an opportunity for children to share ingredient choices and quantities. Use the children's examples as input for the spreadsheet so they can see how it changes.

Demonstrate how changing the number of servings affects the nutritional values. Explain that the original recipe served four so this is a good choice for their recipe but they should be aware of portion size.

Evaluating nutritional values

Provide access to computers, tablets or laptops (one each) with the *Download: Nutritional values calculator* already loaded or in a location accessible to the children. Allow the children time to input their quantities and discuss the values.

Ask them to print their nutritional values per portion information (see Teacher knowledge).

Combine each group of two with a group of three and explain that they must choose the ingredients list with the best nutritional value to make in [Lesson 6: Making bolognese](#) (see Teacher knowledge).

Display the *Presentation: Which has more value?* and discuss the prompts to help them decide.

Presentation: Which has more value?3

Allow the children time to discuss which recipe provides the best nutritional value and decide which ingredient list they will use.

Recipe adaptation

Ask the children to access the *Download: Simple bolognese recipe* on their device. Display this on the interactive whiteboard and model using the editing tools to change the recipe's ingredients to match their choices.

Model how to:

- Show substitutions in blue text by changing the carrot to celery.
- Show new ingredients in green text by adding one red chilli.
- Strikethrough ingredients being removed by striking through the beef mince.

Explain to the children that the method should stay mostly the same, but they should make small adjustments where new ingredients are added.

Model the following on the example:

- Use strikethrough to remove the instructions for browning the mince.
- Add chop the celery and chilli to step 2 in green.
- Add the celery at the same time as the onions and the chilli at the same time as the garlic to step 3 in green.

Invite the children to discuss in their groups when they think they should add any substituted and additional ingredients.

Use the prompts on the *Presentation: Recipe adaptation* to help them.

Presentation: Recipe adaptation4

Allow the children time to adjust the recipe and print copies for books.

Wrapping up

Hand out whiteboards and pens (one each) and invite the children to write down one ingredient they chose to improve the nutritional value of the bolognese recipe.

Take feedback by asking the children to reveal their boards and invite a few children to suggest why their choice adds more nutritional value.

Questions

- What does red on a nutritional label show? (That the food has a high amount of that nutrient.)
- Why is it important to understand nutritional information? (To be able to make informed choices about a balanced diet.)

Vocabulary

Adaptation

A change made to something.

Evaluate

Discuss whether something is a good choice or not.

Justify

Explain why something is chosen.

Nutrient

Substances that help living things stay healthy and grow.

Nutritional value

The nutrients a food or recipe provides.

Assessing progress and understanding

Pupils with secure understanding indicated by:
using a nutrition calculator to find out the nutrient information of ingredients; comparing the nutritional values of two ingredient lists; choosing an ingredient list to turn into a recipe based on its nutritional value.

Adaptive teaching

Pupils needing support

Could be shown the nutritional calculator before the lesson.

Pupils working at greater depth

Pupils working at greater depth indicated
by: reasoning beyond the nutrition calculator and providing knowledge of vitamins and minerals to justify choices in the recipe.

Could be asked to draw on prior learning to consider the other benefits of the fruits and vegetables in the recipes.