

## Beans and Biodiversity

# Taste



### Learning objectives

**Duration:** 1 hour to 1 hour and 30 minutes

The focus of this lesson is using our sense of taste and sight to explore different beans and to make and explore a bean dish (either a bean salad or a bean stew). The lesson also looks at the concept of biodiversity and how eating many different beans can help with the diversity of our diets as well as the biodiversity of nature.

### Resources

**Equipment:** Can opener if needed (check if cans have ring pulls), sieve or colander, peelers, a couple of large bowls, a couple of serving spoons, reusable plate and spoon for each child.  
Optional: a pestle and mortar to grind spices.

**Food to buy:**

Several bags of dried beans to look at – try to choose a couple of colourful varieties of different sizes e.g. borlotti, flageolet, black beans, cannellini, butter beans

For the lesson you will make a bean salad, it is very simple and you can give children jobs to do such as: tear the herbs, measure the oil and vinegar, peel the cucumber, chop the cucumber and tomatoes, stir the salad, hand out portions.

**Ingredients:**

3 x cans or jars of different bean varieties e.g. white, kidney, fava, butter bean  
1 large cucumber  
500g cherry tomatoes (ideally on the vine)  
Olive oil  
Apple cider vinegar  
Salt  
Herbs e.g. mint or basil  
Whole cumin and coriander seeds

**Preparation:**

- Drain and rinse the beans.
  - Peel and finely chop the cucumber.
  - Wash the cherry tomatoes and cut in quarters.
  - Wash the herb leaves and tear them.
  - Grind the spice in the pestle and mortar.
  - Mix everything together with some oil, vinegar and salt.
- Some children may wish to add extra spice as they taste the salad.

**Safety:** explain to the children that the dried beans in the lesson are only for looking not tasting. Before you start, make sure the children wash their hands.

## Lesson Outline

1. Today we're doing TastEd - that means we're going to be exploring new foods using our senses.
2. Has everyone washed their hands?
3. Ask the class, 'Can anyone tell me what the five senses are?' Sight, touch, hear, smell and taste. For each sense ask the children which part of the body they use.
4. Remind them of the two golden rules: NO ONE HAS TO TRY and NO ONE HAS TO LIKE anything.
5. Today is about taste and sight. We are exploring how beans taste and look.
6. How many different beans can you name? Encourage an open conversation. Give children space and encouragement. They may mention things like jelly beans, you can explain they are not beans although they look like beans.
7. There are around 400 types of edible dry beans in the world! Some children find this a very exciting fact.
8. Show the children some dried beans. Discuss what they see. Encourage each child to speak in turn while the others listen. Ask them to think of similes. 'The bean reminds me of...'
9. Most people in the UK only eat baked beans. Haricot beans.
10. Beans can be dried, canned or jarred.
11. Who likes beans/ Can you say why? Encourage children to share experiences from home. It's okay not to like something but try and remind children to be respectful—especially if it's a food someone else enjoys.
12. Some new ways to try beans. Tacos, soup, salad. Also: curries, stews, dips.
13. Why do our bodies need a variety of nutrients? Different foods provide different nutrients, vitamins, and minerals that our bodies need to function.
14. Eating more types of beans gives us a range of nutrients. Fibre, vitamins, protein, for example.
15. Introduce concept of biodiversity
16. Discuss biodiversity loss and causes.
17. Growing beans means growing biodiversity.
18. Discuss some of the reasons beans are great for biodiversity.
19. Now let's make a mixed bean salad. Talk the children through the beans you are using. Try to talk about why each one is delicious and exciting to you (if it is!)
20. Talk about how to make bean salad. Talk about all the exciting ingredients. Crunchy cucumber. Fresh herbs. Sweet tomatoes. Creamy beans. Zingy vinegar.
21. Make the salad. Give small groups of children jobs to do: three people can peel cucumber, 6 people can tear mint or basil leaves, 3 people can stir, 3 people can grind spices with a pestle and mortar etc.
22. Shall we try the bean salad?
23. How did it taste? Share observations and write them down.
24. Did anyone try anything new today? Celebrate the bravery of children trying new beans even if they didn't like it.

## Word Bank for Beans

**Biodiversity:** black beans, borlotti beans, cannellini beans, pinto beans, broad beans, carlin peas, butter bean, edamame bean, fava bean, kidney bean

**Size / Texture:** Round, plump, podded, kidney, smooth

**Colour:** Ruby-red, milky-white, cream, golden, freckled, inky black, cocoa brown, buttery yellow, dusty pink, jungle green, firetruck red, speckled, marbled

**Smells:** Earthy, nutty, fresh

**Similes:** Like an Easter egg, like rain drops, smooth like river stones, hard like tiny pebbles, creamy like mashed potatoes, as round as marbles, speckled like an egg

## Success Criteria

- I can describe the way different foods taste.
- I can talk about my food preferences, describing why I do or don't like certain foods.

- I understand that not everyone has the same tastes.
- I can explain some of the ways in which beans are a sustainable food.

## Curriculum Links

**Sustainability and Climate Change:** ‘learning about the importance of sustainability’

**D & T:** Cooking and Nutrition: ‘apply the principles of nutrition and healthy eating’, ‘know where and how a variety of ingredients are grown’ and ‘prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques’

**Writing:** Composing a sentence orally before writing it. Writing narratives about personal experiences.

## School Kitchen

Link to a dish in the school menu that includes beans. If there isn’t one, ask the children to suggest some recipes that you could pass onto the kitchen staff for them to include going forward.

## Reading links for teachers and children

**Teachers:**

[Beans is How](#)

[How beans can help fix the future of food](#) - The Food Foundation (2023)

[Beans are good for people and the planet, so why aren’t we eating more of them?](#) The Sustainable Food Trust (2024)

**Extra Resources for Children:**

**Short stories, poem (see separate resource):** We have put together a series of short stories and poems to share with your pupils, these can also be used as inspiration for children to write do their own creative writing focussing on lentils.

## Optional further activities

**Art / D&T:** Explore patterns from different cultures (e.g. [Indian rangoli art](#)). Write a recipe for a bean dish or a persuasive poster to get people to eat more beans!

**Science:** Plant different bean types (e.g. chickpeas, kidney beans, black beans) in jars with cotton wool. Track which sprouts fastest—graph the results! Fair Test Experiments: Do beans grow better in sunlight or shade? With water or without? Let pupils design the investigation.

**English & Literacy:** Create a bean diary: write daily observations of a growing bean.

**Computing / Digital Literacy:** In pairs, children can research unusual types of beans (adzuki, mung, lupin) and create a simple fact file or slideshow.

**History: Create a Timeline of Bean History** e.g. Ancient Farming, Ancient Egypt, Native American Agriculture, Roman Empire, Columbian Exchange, 1800s - and the beginning of tinning, today = beans for our health and planet. Let children create illustrated cards for each point. Make a washing line timeline with string and pegs and add real beans (glued to labels) to represent each era.

**Geography:** Create a bean-based **world food map** to compare how different cultures cook with beans — e.g. Mexican refried beans, Indian dal, African black-eyed peas, British baked beans.

## Background facts for teachers

Beans grow on **climbing vines**, **bushes**, and even **trees**. A single **bean plant** can produce dozens of pods—like a magical mini jungle!

They are part of the legume family, and there are **over 40,000 varieties** of beans around the world—some are grown for eating, some for drying, some just for beauty.

Haricot beans (the bean in baked beans) are also called Navy Beans because they were a staple food for the U.S. Navy in the 19th century due to their long shelf life and high nutritional value.

Beans adapt to their climate, soil, and culture—so the beans grown in Italy look and taste different from those in India, Brazil, or the UK.

Beans are **sustainable**: they enrich the soil, grow well without chemicals, and fix nitrogen - making them a great source of fibre and protein. They reduce the need for synthetic nitrogen fertilisers and can reduce eutrophication (when additional nutrients end up in lakes and rivers, they can cause too much plant growth, which uses up oxygen in the water and can harm or kill fish and other wildlife). Read more [here](#).

Beans are eaten all over the world and have been grown for **thousands of years**—some were even found in ancient Egyptian tombs!

Not just for soups and stews, some beans (like soybeans) can be turned into milk, tofu, or even ice cream!



These lessons have been produced in collaboration with Beans is How, with financial support from the US Dry Bean Council. Beans is How is a global campaign to double the consumption of beans, peas, lentils and other pulses by 2028, bolstered by a Coalition of 120+ partners. Beans are a simple, affordable solution to help address malnutrition, climate change, biodiversity loss, and food affordability.

