



## Does the appearance of food affect how it tastes?

### Lesson overview:

In this lesson, the children explore their senses and then use their sense of taste to investigate the taste of wonky irregularly-shaped fruit and vegetables.

This lesson could be used to start the children thinking about how they might keep both their bodies and their planet healthy and inspire them to design an idea, invention or innovation that will help farmers continue to care for the environment and be climate superheroes for their Farmvention competition entry.

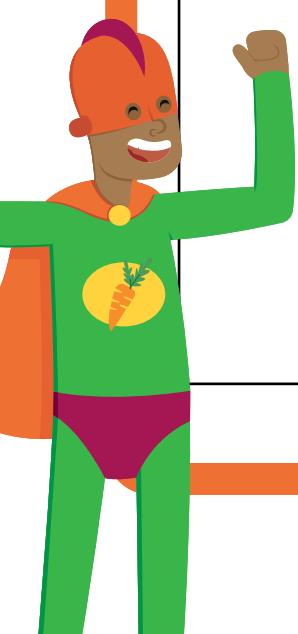
### Equipment needed:

- Timer or watch
- Opaque boxes/bags with a range of familiar objects hidden inside
- Cups or yogurt pots with strong-smelling foods inside, covered with paper or kitchen roll with small holes poked in and held in place with an elastic bag
- Range of foods for tasting
- Three samples of at least one kind of fruit/vegetable, some more 'wonky' than others
- Pencil & paper for recording results
- Knives, peelers and chopping boards for preparing tasting samples

### Teacher guidance:

#### Slide 2: Introduction

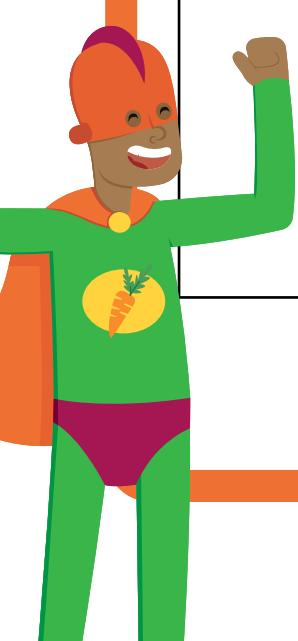
- Discuss with children which foods we get from UK farms. You could ask:
  - Where do we get fruit and vegetables from?
  - Have you ever been to a farm? What food sources did you see?
  - What did you have for dinner last night? Which parts of your meal came from farms?
  - What are your favourite fruits and vegetables? Do you think we can grow these in the UK?
- Produce commonly grown on UK farms includes carrots, potatoes, onions, parsnips, broccoli, cabbage, celery, courgettes, tomatoes, apples, pears and strawberries to name a few examples. Discuss which of these children like to eat and the fact that all of these foods are healthy.
- If you are carrying out this activity at home, you could explore your cupboards to see what you have that has been grown in the UK. If you are carrying it out at school, you could try and find out where your snack time fruit has been grown.
- This video looks at some of the produce that is harvested in UK farms and could be used to familiarise children with farming processes:  
<https://www.youtube.com/watch?v=L1PdwQOurgU>
- These videos show different vegetables growing and show the whole journey from planting to arriving in supermarkets:
  - Carrots – <https://www.youtube.com/watch?v=Pf74rrn1uLk>
  - Peppers – <https://www.youtube.com/watch?v=wpYWSdH9rPE>
  - Potatoes – <https://www.youtube.com/watch?v=lYBuY-DnCJc>
  - Tomatoes – <https://www.youtube.com/watch?v=PGoPGAR5OMw>
- You could also ask the children to think of any questions about how vegetables are grown in the UK and then arrange to Facetime (or Skype) a farmer to discuss them:  
<https://leafuk.org/farmertime/home>



# Teacher guidance - 2



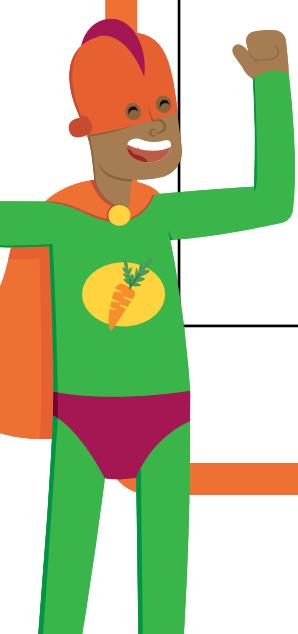
<b>Slide 3: Irregularly shaped vegetables</b>	<ul style="list-style-type: none"> <li>Discuss with children their views on eating so-called 'wonky' fruit and vegetables. Have any of them tried to grow their own food before? Did it look like the produce we see in the shops? How did it taste?</li> <li>Talk about some of the recipes and meals they are familiar with and consider whether or not you can tell what shape the vegetable was before it was added to the meal.</li> </ul>
<b>Slide 4: The question</b>	<ul style="list-style-type: none"> <li>Explain that you are going to use your senses to investigate the question: Does the shape of food affect how it tastes?</li> </ul>
<b>Slide 5: Senses</b>	<ul style="list-style-type: none"> <li>Use the presentation to discuss our five senses and which sense organs we use for each of them.</li> <li>The five senses children learn about when following the UK National Curriculum are the senses of sight, hearing, smell, touch and taste. These help us to make sense of the world around us and, importantly, keep us safe. For example, we can use our senses to help us identify food that might make us ill, time when it might be unsafe to cross a road or objects that might be too hot or sharp to touch.</li> <li>Discuss with children when they have used each sense so far today, for example they may have used their sense of taste while eating their breakfast, or their sense of hearing to listen for their name during the register or their sense of sight to see when the light on the pedestrian crossing changed to green.</li> <li>Watch video to take a look at senses in use on a farm: <a href="https://www.youtube.com/watch?v=JCsQbE3-gfU&amp;list=PLfQQD6ZJA60YhGhL-T9NhlnlJGYiNi0vf&amp;index=10">https://www.youtube.com/watch?v=JCsQbE3-gfU&amp;list=PLfQQD6ZJA60YhGhL-T9NhlnlJGYiNi0vf&amp;index=10</a></li> </ul>
<b>Slide 6: Exploring sight</b>	<ul style="list-style-type: none"> <li>You could play traditional 'I Spy' here, in which players look for something beginning with a particular letter, or you could give children the opportunity to practise their phonics skills by adapting the game so that they are looking for something that contains a certain sound. For example, "I spy with my little eye, something that has the 'ar' sound," (carpet, arm, garden etc.)</li> <li>Throughout the game, reinforce that we are using our eyes and sense of sight to find the objects.</li> </ul>
<b>Slide 7: Exploring hearing</b>	<ul style="list-style-type: none"> <li>Carry out a 'listening minute' both indoors and outdoors. Ask the children to sit in silence and think about what they can hear.</li> <li>Ensure the children keep their eyes closed during their listening minutes so that they are only using their sense of hearing to identify things.</li> <li>You could ask them to write lists of the things they hear. Alternatively, you could play them some sounds found online and see if they can identify the sources.</li> <li>Throughout the activity, keep reminding the children that they are using their sense of hearing and ears to identify things.</li> <li><b>Questions to ask:</b> <ul style="list-style-type: none"> <li>- Did you hear the same sounds indoors and outdoors?</li> <li>- How easy or hard was it to work out what was making all the different sounds?</li> <li>- Were all the sounds the same volume, or were some louder and some quieter sounds?</li> </ul> </li> </ul>



# Teacher guidance - 3



<b>Slide 8: Exploring touch</b>	<ul style="list-style-type: none"> <li>Hide a selection of familiar objects in an opaque bag or box and ask children to reach inside and try and identify the items.</li> <li>Throughout the activity, keep reminding the children that they are using their sense of touch and skin to identify things.</li> <li>Children can think that they just use their hands for their sense of touch, not their skin. To help them learn that it is our skin and not just our hands that use our sense of touch, offer them two very different objects, such as a teddy and a book, and ask them to identify which is which using only their feet or forearms with their eyes closed.</li> <li><b>Questions to ask:</b> <ul style="list-style-type: none"> <li>- Was it easy or hard to work out what was hidden using only your sense of touch?</li> <li>- Could you tell if the objects were soft or hard?</li> <li>- Could you tell what colour they were?</li> <li>- Could you tell if they were rough or smooth?</li> </ul> </li> </ul>
<b>Slide 9: Exploring smell</b>	<ul style="list-style-type: none"> <li>Hide some familiar-smelling objects in small opaque cups or yogurt pots, cover the top with a piece of paper or kitchen towel with small holes poked in and secure this in place with an elastic band.</li> <li>Ask children to smell each pot and try and identify what is inside. Foods which work well in this activity include oranges, lemons, coffee grounds, mints, garlic, onion, curry powder and some cheeses.</li> <li>Throughout the activity, keep reminding the children that they are using their sense of smell and their nose to identify things.</li> <li><b>Questions to ask:</b> <ul style="list-style-type: none"> <li>- Was it easy or hard to work out what was hidden using only your sense of smell?</li> <li>- Were all of the smells nice or were there some that you didn't like?</li> </ul> </li> <li><b>Health &amp; Safety</b> – Make sure you are aware of any allergies in your class before allowing children to smell hidden foods.</li> </ul>
<b>Slide 10: Exploring taste</b>	<ul style="list-style-type: none"> <li>Carry out a blindfolded taste test of some familiar foods. You could offer children a range of different foods to try or limit the range to different kinds/flavours of the same thing, for example differently flavoured yogurts or crisps.</li> <li>Some children may be reluctant to try something they can't see, and so using different flavoured crisps is a good option here as they will not need to be blindfolded. If you have access to food colouring, you could use them to give familiar yogurts a different appearance.</li> <li>To truly limit children to just their sense of taste, you could also ask them to hold their noses so that they cannot use their sense of smell.</li> <li>Throughout the activity, keep reminding the children that they are using their sense of taste and their tongue to identify things.</li> <li><b>Questions to ask:</b> <ul style="list-style-type: none"> <li>- Was it easy or hard to work out what was hidden using only your sense of taste?</li> <li>- Were all of the smells nice or were there some that you didn't like?</li> <li>- Was it easy or difficult to work out what was in each cup?</li> </ul> </li> <li><b>Health and Safety</b> – Make sure you are aware of any allergies or dietary restrictions in your class before allowing them to taste any food.</li> </ul>



# Teacher guidance - 4



<b>Slide 11: Senses quiz</b>	<ul style="list-style-type: none"> <li>Ask children to discuss which sense they would use for each activity. Humans rarely just use one sense in isolation so they may want to give more than one answer.</li> </ul>
<b>Slide 12: Shopping with our senses</b>	<ul style="list-style-type: none"> <li>Discuss the questions on the presentation with the children.</li> <li>If their parents/carers shop while they are not with them or use online delivery services, children may have limited experiences of shopping for fruit and vegetables. In this case, use the photos to talk about which vegetables they would pick and how they would decide which is best.</li> </ul>
<b>Slide 13: irregularly- shaped vegetables</b>	<ul style="list-style-type: none"> <li>Discuss how we use our senses when we are enjoying our food. Research has shown that we do, to some extent, 'eat with our eyes', and our perception of how something tastes is affected by the way it looks.</li> <li>Discuss the pictures of differently-shaped fruits and vegetables and how children think their shape might affect their taste, linking in previous learning about senses. It is very likely at this point that children will say the more regular-looking fruits and vegetables will taste better.</li> <li>Show children three or more examples of a fruit/vegetable that are differently shaped, some of which look more regular than others. If you find it difficult to find unusually-shaped produce, you could add some dirt or surface scuffs to one of your veg that will not affect the taste or usability of the food. Good foods to choose for this include carrots, apples, peppers, satsumas, grapes, cucumbers, strawberries or tomatoes.</li> <li><b>Questions to pose to the children:</b> <ul style="list-style-type: none"> <li>- Which of these three [strawberries] would you most like to eat?</li> <li>- Which do you think will taste best?</li> <li>- Why do you think this one will taste best?</li> </ul> </li> <li><b>Health &amp; Safety</b> – Make sure you are fully aware of any allergies in the class before allowing children to handle produce.</li> </ul>
<b>Slide 14: Investigating unusually- shaped vegetables</b>	<ul style="list-style-type: none"> <li>Set the scene: Lots of fruit and vegetables are thrown away each day because they are unusually shaped.</li> <li>You need to investigate whether the wonky produce tastes worse than the regularly-shaped food or if the unusual-looking food is worth saving!</li> <li>It is likely that children will need a lot of guidance in planning this investigation, and so this discussion should be carried out as a class and a method agreed upon together.</li> <li><b>Questions to ask:</b> <ul style="list-style-type: none"> <li>- Which sense will we use to find out how yummy different vegetables are? Which sense organ do we use for this sense?</li> <li>- How will you find out which one tastes best?</li> <li>- How will you make sure you are not judging the food by the way it looks?</li> </ul> </li> <li>Possible suggestions for carrying out the investigation include: <ul style="list-style-type: none"> <li>- Asking children to rank three of the same type of fruit/vegetable according to which looks the tastiest and recording this, then carrying out a blindfolded taste test or tasting a piece of each that has been cut up in such a way that all three pieces look identical or very, very similar and again ranking them according to which tastes better. This will need careful monitoring by an adult to make sure it is remembered which tasting sample came from which fruit/vegetable.</li> </ul> </li> </ul>



# Teacher guidance - 5



<b>Slide 15: Conclusion</b>	<ul style="list-style-type: none"> <li>Discuss the results children gathered and whether they answer our investigation question – does the shape of food affect the way it tastes?</li> <li><b>Questions to ask:</b> <ul style="list-style-type: none"> <li>- Were you able to work out which vegetables were the irregularly-shaped ones just by tasting them?</li> <li>- Were you surprised by what you found out?</li> </ul> </li> <li>Discuss whether this changes their ideas about irregular-looking fruit and vegetables and what they might say to someone who doesn't want to buy produce that is unusually shaped.</li> <li>To extend this investigation, the children could plan and create a project that will help raise awareness of the value of wonky food to save it from being thrown away. The sky is the limit, and they can share their ideas in any form they would like, the more creative the better! Some possible suggestions include:           <ul style="list-style-type: none"> <li>- Devise a recipe that includes irregularly-shaped produce, such as a soup, stew or salad</li> <li>- Create a poster encouraging people to be wonky veg superheroes and take on the challenge of trying irregularly shaped produce for themselves</li> <li>- Write and present a news bulletin explaining your findings about the taste of irregularly-shaped vegetables. You could film this using a tablet or phone.</li> </ul> </li> </ul>
<b>Slide 16: Farmventing</b>	Encourage the children to think about how they could use their learning about irregularly-shaped vegetables to help them design an idea, invention or innovation that will help farmers continue to care for the environment and be climate superheroes.

## Possible links to the National Curriculum

Subject	Topic	Objective
Science	Working Scientifically	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <p>Asking simple questions and recognising they can be answered in different ways</p> <p>Performing simple tests</p> <p>Using their observations and ideas to suggest answers to questions</p>
	Animals, including humans	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense
Design & Technology	Design	Generate, develop, model and communicate their ideas through talking, drawing templates, mock-ups and, where appropriate, information and communication technology
	Cooking and nutrition	Understand where food comes from

