

Y7 Science – 60 minutes

Lesson plan

Curriculum link: Content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed.

Learning Objective: To explore job roles linked to the healthy human diet part of the KS3 science curriculum.

Learning Outcomes:

- To understand why knowledge of a healthy human diet is necessary for a dietician
- To understand how knowledge of other job roles can help in influencing others

Success Criteria:

1. **Describe** – what does a dietician do?
2. **Understand** – how is knowledge of a healthy human diet necessary for a dietician?
3. **Apply** – create a plant-based, sustainable diet plan and use it to influence other people's diet decisions.
4. **Analyse** – how can different jobs and skills help in marketing products and influencing others?
5. **Reflect** – were there opportunities or roles that interested you?

Timings	Activity	Details	Resources
3 mins	Starter – What do you see?	Starter: In your pairs discuss 2 learnings you can share from this graph. Extension: How does this impact society? <i>Animal products typically have higher greenhouse gas emissions (in kg CO2 Emissions [CO2e] of food product) than plant-based foods.</i>	Slide 3
3 mins	Introduction – What's the problem?	Facilitator to ask a student to read out the statement on the board. Ask pairs to discuss why they think this is a problem. Get feedback, all answers welcome. <i>(Meat and fish have a negative impact on the environment and yet how are we supposed to maintain healthy, balanced diets – whilst being sustainable?)</i> The challenge	Slides 4,5



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		<p><i>'How can you help Sasha create a plant-based, sustainable diet plan that's appropriate for athletes and can be marketed to wider society?'</i></p> <p>So, who are the kinds of people who might want to tackle this exact problem in their day to day lives? Introduce the challenge for the students today and the role of a dietician, Sasha and her athlete client Anja.</p>	
7 mins	Describe – what does a dietician do?	<p>Introduce the role of a dietician.</p> <ul style="list-style-type: none"> Show the video embedded in the PowerPoint (link here or here in case it doesn't work) AND/OR give students print outs of case studies (here) and summarise findings in a 280 character tweet. <p>True or false quiz about what a dietician does <i>Can be done with mini-white boards, hands up, standing in certain area of classroom etc</i></p>	<p>Slides 6,7</p> <p>Video</p> <p>Print out of case studies (optional)</p>
7 mins	Understand - how is knowledge of a healthy human diet necessary for a dietician?	<p>Dietician for a day! Discuss what nutrients an athlete needs and why?</p> <ul style="list-style-type: none"> What are the names of the different food groups? Which ones are important for an athlete? Why are those nutrients important? What should an athlete avoid having too much of? Why? <p>Get feedback from the class. This could be done in several ways depending on the class – hands up/pick a person/write ideas on a mini whiteboard/discuss with the person next to you and feedback to the class</p> <p>Modify Anja's diet plan (what needs replacing and why) use worksheet 1. Look at Anja's current diet. Discuss in pairs what food need to be removed from Anja's diet and what they could be replaced with. Fill in the table and feedback to whole class.</p>	<p>Slide 8,9</p> <p>Mini whiteboards (optional)</p> <p>Worksheet 1 (printed and cut up per person)</p>



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		Facilitator should ask the pairs to look at the pair next to them and feedback their favourite/most imaginative example. Go around the room and write up the examples that they've chosen from their neighbouring group. The facilitator should get feedback from the class and make a note of these examples on the main board for the class to refer to at the next stage of the activity.	
20 mins	Apply – create a plant-based, sustainable diet plan and use it to influence other people's diet decisions.	<p>Challenge task</p> <p>Students given diet plan and asked to create a new plant-based week-long diet plan for Anja with foods for each meal. Should use worksheet 2 to complete this. This activity should last 10 -15 minutes.</p> <p>Extension: explain why Anja needs each of the foods.</p> <p>Students then have 5 minutes to send a tweet from Anja's account to explain why she's choosing a plant-based diet and what she's substituting in her diet.</p>	<p>Slides 10,11, 12,13</p> <p>Worksheet 2</p>
10 mins	Analyse – how can different jobs and skills help in marketing products and influencing others?	<p>Now that the groups have their plant-based, sustainable diet plans, return to the challenge question - <i>'How can you help Sasha create a plant-based, sustainable diet plan that's appropriate for athletes and can be marketed to wider society?'</i></p> <p>Sasha will need the help and skills of other professionals to help her encourage other people to eat more sustainably.</p> <p>Give students the selection of job roles and descriptions.</p> <p>Focus is on how students justify inclusion of job role. For those that could be involved students need to say how they would be involved and why</p>	<p>Slides 14,15,16, 17,18,19</p> <p>Worksheet 3 (optional)</p>



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		<p>knowledge of diet and nutrition would be beneficial.</p> <p><i>Depending on the class this can be done in one of two ways. Either:</i></p> <ul style="list-style-type: none"> • <i>Teacher uses the accompanying slides to describe the different roles to the whole class. Have a class discussion to think about the answers to the questions, then students fill in the worksheet individually.</i> • OR <i>if students are working at different paces within the class, then give worksheet 2 to students that are ready to start. The worksheet has the same descriptions as the PowerPoint slides so students can use these to make their own decisions and fill in the worksheet.</i> 	
5 mins	Reflect – were there opportunities or roles that interested you?	Students should reflect on these questions individually and make a note of their answers in their exercise book.	Slide 20
	Optional extensions if more time or can be set as homework	<p>Task 1 Keep a food journal for a week, like Anja’s. And answer the following:</p> <ul style="list-style-type: none"> • In what ways could you change your diet to make it more plant-based and sustainable? • How would you ensure that you are maintaining a balanced diet? <p>Task 2 Research a new plant-based recipe to swap out one of your meat options (or just a new vegan/vegetarian recipe if you don’t eat meat). For example, an aubergine curry rather than a chicken curry recipe. Write it up and bring it in to swap with another recipe from a classmate.</p>	<p>Slide 21</p> <p>Option to print worksheet 2 for their own diet plan</p>

