Cyfoeth Naturiol Cymru
Natural Resources Wales

Activity plan

Eating for Wales

Time needed for activity

60 minutes plus

Location

Indoors or Outdoors

Context

This activity plan highlights the importance of being an ethical and global citizen and creating a sustainable food system to reduce human impacts that contribute to climate change.

Natural Resources Wales' purpose is to pursue the sustainable management of natural resources in all of its work. This means looking after air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

Curriculum for Wales

Science and Technology	Health and Well-being	Humanities	Languages, Literacy and Communication
• **What matters** Being curious and searching for answers is essential to understanding and predicting phenomena.	• **What matters** Our decision-making impacts on the quality of our lives and the lives of others.	• **What matters** Informed, self-aware citizens engage with the challenges and opportunities that face humanity, and are able to take considered and ethical action.	• **What matters** Expressing ourselves through languages is key to communication.
	• **What matters** How we engage with social influences shapes who we are and affects our health and well-being.		

Objectives

- Learners will understand that our food systems have an effect on the natural environment.
- Learners will identify the sustainability of specific diets.
- Learners will be able to explain factors that contribute to maintaining specific diets.
- Learners will form their own opinion on what diet is the most ethical to maintain in order to promote physical health.

Resources and equipment

- Access to research materials – books, smart devices.

What to do

Activity 1 – Diet Identity

1. Begin by asking your learners to think about why humans need food. Can they list a range of reasons? Food is something that provides nutrients. Nutrients are substances required by the body to perform its basic functions and sustain human life. As the human body does not produce nutrients, they must be obtained from diet. They:
   - Provide energy for growth and activity
   - Regulate our body systems, such as breathing and digestion
   - Control our temperature
   - Promote cell repair
   - Help maintain a healthy immune system
2. Can your learners explain what foods are the healthiest for humans to incorporate into their diet and why? The healthiest diets have more fruits, vegetables, nuts, beans, whole grains and low-fat dairy, and less salt, sugary drinks, white flour, and red meat.
3. Do your learners identify on an individual basis as following a specific type of diet? Ask your learners to try to group themselves according to the type of diet they mostly consume. What kind of questions could they ask each other to work out if they eat similar or very different diets? Once in their diet groupings, compare the popularity of the different diets. Is more than one type of diet represented? Does this say anything about the community your learners live in?
4. Do your learners understand that most creatures, including humans, usually conform to maintaining a specific diet? A diet is the kind of food that a person, animal, or community habitually eats. Ask your learners to consider what might influence an individual's dietary habits? For instance, dietary habits are influenced by socioeconomic, cultural and religious factors and individual life choices:
   - Families on a low income might only be able to access poorer quality food
   - In some countries it is acceptable to eat insects and amphibians such as frogs
   - Those following the Jewish faith don't eat pork
   - An athlete might follow a strict or protein rich diet
   - A child will often follow the same diet as its parents
   - Geographical location can influence what we eat
   - We have access to more to processed and global foods so we might eat differently to how our grandparents did as children
5. Although many humans are omnivores, choosing to eat both plants and meat, each culture and each person holds some food preferences or some food taboos. In small groups ask your learners to try to list, and write a definition for different types of diets that humans follow, e.g. meat eaters, vegetarians, lacto vegetarians, ovo vegetarians, pescatarians, vegans, fruitarians, etc. Allow time for them to research. Each group could prepare a PowerPoint slide to present their findings to the wider group.
6. With these diets in mind, can your learners identify any characteristics or adaptations of the human body that help us identify what kind of foods we should naturally eat? Compare and contrast consumption adaptations between humans and other creatures, for example, our teeth. How do our teeth compare with carnivorous or herbivorous animals? Snakes swallow their prey whole because they don't have teeth designed for chewing. Humans cannot swallow food items whole, but must chew them finely and mix them with saliva before the ball of food will slide down the oesophagus. Carnivorous animals, such as cats, tear off chunks and swallow them almost immediately. Can your learners use their findings to come to a consensus of opinion on whether humans are created to be carnivorous, herbivorous or omnivorous? If not, what divides opinion?

Activity 2 – Food for thought?

1. Discuss how we currently use the natural environment to provide food, e.g. seaweed farms, almond growing, cereal crops, dairy farming, orchards and foraging. Ask your learners to list these within the context of local, national and international uses. Are any of these uses sustainable?
2. Ask learners to consider if the way we currently use the natural environment to provide our food is responsible for many impacts on the environment. Ask your learners to think about what these impacts might be. For example, the way we manage our food systems, both locally and globally, causes:
   - Air pollution from transporting food
   - Water pollution from excess nutrients (both phosphorus and nitrogen) from agriculture
   - Deforestation
   - Soil degradation
   - Depletion of natural resources
   - Loss of habitats and biodiversity
   - Eutrophication
   - Acid rain
   - Additional changes to the climate
   - Litter and waste
   - Excess use of water to grow food
3. Divide your learners into small groups and allocate each group with one type of diet to consider, e.g. meat eaters, vegetarians, lacto vegetarians, ovo vegetarians, pescatarians, vegans, fruitarians, etc.
4. Task your learners with investigating, researching and writing down the positives and negatives of food production that supports their allocated diet. To help with focus, they could first create an average meal from their diet, e.g. a burger and chips with a side salad for a carnivore, Menai mussels for a pescatarian or a tofu tagine for a vegan. Ask your learners to consider:
   - Does their diet promote all round physical health?
   - Can they estimate the average costs for a family of 4 to follow the diet for 1 week, having 3 meals a day? Your learners could do a virtual online shop to calculate the actual cost.
   - Is the diet more or less expensive than they expected?
   - Does the diet support local industry?
   - What impacts might their designated diet have on the natural environment. For instance, does their diet rely heavily on imported goods that don't grow in our country, resulting in pollution from transportation and possible deforestation in another country?
   - Do their main food items need land to be managed in a specific way, e.g. trees cut down and land adapted for grain cultivation or animal grazing?
   - Do their foods use a lot of natural resources, e.g. water to grow almonds for almond milk?
5. Ask each group to use the positive and negative lists to consider their personal position on the diet and discuss in group. If some of the diets are very bad for the environment, how could they be improved to be more sustainable?

Activity 3 – Eat my way

1. Following on from the previous activity, explain to your learners that they are going to take part in a debate.
2. Each group is to present their allocated diet, focussing on explaining the environmental positives and negatives.
3. Members of the other groups can take on a community role, respectfully asking questions and challenging perceptions of the diet in a Q & A, following the presentation. Community roles could include - chicken farmer, crop farmer, climate change activist, land manager, vegan shopper, meat eater shopper, parent, butcher, organic café owner, athlete, forester, etc.
4. Following the presentations, ask your learners to choose which of the diets they believe is the best to follow, to reduce their impact on the natural environment and help mitigate climate change? What are the elements that help the diet be more sustainable? Can they think of ways that they could make their current diet more sustainable?

Suggested key questions

- How does our food system work in Wales?
- How does my diet impact on the natural environment?
- What does it mean to be a global citizen?

Adapting for different needs or abilities

More support

- Provide a prechosen list of diets.
- Complete the activities in larger, adult led groups.
- Only complete activity 1 and/or 2.

More challenge

- Research the climate and nature emergencies.
- Complete all 3 activities.

Follow up activity/extension

Try out our:

- **Activity plan - Adapting to climate change**
- **Activity plan - 3 C's of climate change**
- Learn about a more sustainable diet that interests you.
- Write about your personal perspective on any of the issues you have considered during this activity.

Additional Information

Find out more about Natural Resources Wales' work to address climate change at **www.naturalresourceswales.gov.uk**

State of Natural Resources Report (SoNaRR) for Wales 2020 **Bridges to the future**

Looking for more learning resources, information and data?

Please contact: **education@naturalresourceswales.gov.uk** or go to **https://naturalresources.wales/learning**

Alternative format; large print or another language, please contact: **enquiries@naturalresourceswales.gov.uk 0300 065 3000**