

REDUCING RISKS FOR NCDs AROUND THE WORLD

AGE RANGE

10–13

OVERVIEW

Students will learn about the impact of physical activity, nutritious food choices on overall health and reducing the risk of developing certain noncommunicable diseases (NCDs) before discovering the recommended amount of physical activity and food recommendations for their age, gender, etc. Students will then investigate how people in different countries stay healthy and active. What are the snack foods and main forms of physical activity in countries across the globe? Students will use this data to draw conclusions and describe patterns.



TIMING

45–60 minutes

OBJECTIVES

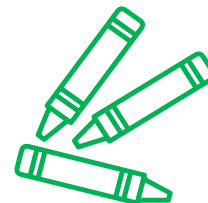
Students will:

- Identify national recommendations for physical activity and nutrition
- Investigate common physical activity and snack foods in other countries
- Draw conclusions about physical activity, nutrition, and NCDs

MATERIALS NEEDED

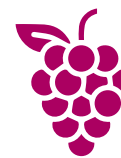
- Pencil, one per student
- **National Recommendations** student handout, one per student*
- **Staying Healthy Across the Globe WebQuest** student handout, one per group*

**Note:* There are facilitation options below if the students are in a virtual situation. Handouts can be provided electronically to be printed at home or as an editable Microsoft Word template to be submitted via email, learning management system, or as a live/shared document.



EDUCATOR PREPARATION

- Before each session, make sure students have access to the required handouts. If students are learning virtually, they can print them out at home or utilise shared online documents. You can also make them available through your chosen virtual learning platform or learning management system.
- If an activity calls for working with a partner or group, students learning virtually can share their answers out loud or write their definitions down to refer to later, add to a live/shared document, or comment in a chat box. Alternatively, you can prepare breakout rooms in your learning management system prior to your session.
 - Platforms like [Zoom](#) allow you to pre-assign participants to breakout rooms. [Google Meet](#) will randomly distribute participants.
- Prior to the session, assign each group a different country for the **Staying Healthy Across the Globe WebQuest**. Some suggestions include United States, Great Britain, Mexico, India, Columbia, Ireland, China, Japan, Russia, etc. (It is not recommended to include your own country, as students will already have investigated and discussed it during the Learn section.) Sample search engine terms have been provided. If you choose to provide students with specific websites they may use, prepare that list prior to the session.



PROCEDURE

Engage

1. For approximately **4–5 minutes**, engage students in the upcoming lesson by asking one or more discussion questions similar to those below.
 - What are some things we can do to stay healthy?
 - What is your favourite way to exercise?
 - Do you know how much exercise you are *supposed* to get?
 - What is your favourite snack?

VIRTUAL FACILITATION OPTIONS

- If students are on video and/or able to use microphones, allow them to share their answers out loud.
- If students are not using video or microphones, encourage them to write their answers down to reference later or use the chat feature.

Learn

2. Explain to students that a noncommunicable disease or NCD is any disease that is not contagious and cannot be spread to others, unlike the flu. Some examples of NCDs are type 2 diabetes and heart disease.
3. Clarify that an NCD is often the result of a lifestyle choice, such as lack of physical activity or not making the most nutritional food choices possible.
4. Instruct the students to investigate the **National Recommendations** handout.

5. Invite 3–4 volunteers to share their thoughts or immediate reactions. If students are reluctant to volunteer, ask how many students were already familiar with these recommendations. Ask for a raise of hands whether they think it is easy or difficult to maintain these recommendations in their daily life.

VIRTUAL FACILITATION OPTIONS

- If students are in a virtual situation, consider using the poll feature.

6. Explain that in the next challenge activity, students will be investigating ‘snack foods’ in various countries. A snack food is a food that is highly available, eaten in large quantities, and ends up being a large portion of the standard diet for a person in that country. For example, in the United Kingdom, potato is a staple ingredient and mashed potatoes, chips and crisps can be found as part of almost every main meal.

Challenge

7. Divide students into groups of 3–4 students. Distribute one **Staying Healthy Across the Globe WebQuest** handout to each group. Give students time to determine who will be the typist, the recorder, and the reporter.

8. Instruct each group to use search engines and research different websites for their assigned countries. If students need assistance, provide them with suggestions for search engine terms. They should decide as a group which information they want to share, and the recorder should write it in the appropriate box(es) on their **WebQuest** handouts. Sample search terms might include:

VIRTUAL FACILITATION OPTIONS

- If students are in a virtual situation, consider using the breakout group feature, a shared/live document, or they can complete it individually.

- Nutritional recommendations in *[specific country]*.
 - What is a snack food in *[specific country]*?
 - Physical activity recommendations in *[specific country]*.
 - What kind of exercise is popular in *[specific country]*?
9. After approximately **15 minutes**, instruct groups to begin comparing and contrasting their research with the information presented on the **National Recommendations** handout in the Venn Diagram on page 2 of their **WebQuest** handout. Students will be comparing their own country’s recommendations with those of the specific country that was assigned to them during the WebQuest.
 10. Lastly, have groups look up how many people die annually from NCDs in their assigned country and record it on their handouts.



Apply

11. Review with students the basics of the national nutrition and physical activity requirements and how many people die each year from NCDs in their country. Give them **2–3 minutes** to discuss within their group their Venn Diagrams and how that information compares to their assigned country.
12. Facilitate them in drawing conclusions about how national recommendations relate to NCD deaths, what role snack foods and common physical activity play in the occurrence of NCDs, etc. Do they help people make nutritional food choices, or are they contributing to unhealthier choices? Encourage them to think about the kinds of foods that are recommended to be healthy and if they are reflected in the country's snack foods. What else do they think impacts which foods become 'staple?' Do they think that the economics of a country has anything to do with their snack foods or the amount of NCDs? Instruct each group's recorder write down his/her group's thoughts on their handout.

Discuss

13. Invite each group to share their research and conclusions with the class. After one group has shared, they can 'popcorn' to another group to share their information. To 'popcorn' means the student will call out the next group's reporter so they can 'pop' up and begin sharing. Continue this activity until all groups have shared their WebQuest information.

Reflect

14. Take time to facilitate students' reflections on their experiences during the session. Consider asking one or more discussion questions similar to those below:

- How much physical activity is it recommended you get every day?
- What role does food play in keeping us healthy?
- How does your country compare to other countries with regards to nutrition, exercise, and incidence of NCDs?
- Are there any patterns you notice between countries?



VIRTUAL FACILITATION OPTIONS

- If students are in a virtual situation, consider using the chat feature or a shared/live document.

EXTENSION IDEAS FOR EDUCATORS

- Provide students with the opportunity to design a week-long meal plan based on the nutritional recommendations and snack foods of their assigned country.
- Ask each group to create a 2–3-minute fitness routine based on the common forms of physical activity in its assigned country and lead the class in participating.

UK DEPARTMENT FOR EDUCATION STANDARDS & GUIDANCE UNITED KINGDOM

[Physical Health and Mental Wellbeing Guidance \(Primary and Secondary\)](#)

- **Physical Health and Fitness (Primary)**

Pupils should know:

- the characteristics and mental and physical benefits of an active lifestyle.
- the importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.
- the risks associated with an inactive lifestyle (including obesity).
- how and when to seek support including which adults to speak to in school if they are worried about their health.

- **Physical Health and Fitness (Secondary)**

Pupils should know:

- the positive associations between physical activity and promotion of mental wellbeing, including as an approach to combat stress.
- the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.
- about the science relating to blood, organ and stem cell donation.

- **Healthy Eating (Primary)**

Pupils should know:

- what constitutes a healthy diet (including understanding calories and other nutritional content).
- the principles of planning and preparing a range of healthy meals.
- the characteristics of a poor diet and risks associated with unhealthy eating (including, for example, obesity and tooth decay) and other behaviours (e.g. the impact of alcohol on diet or health).

- **Healthy Eating (Secondary)**

Pupils should know:

- how to maintain healthy eating and the links between a poor diet and health risks, including tooth decay and cancer.

Mathematics

- [Statistics \(KS2\)](#)

Pupils should be taught to:

- solve comparison, sum and difference problems using information presented in a line graph.
- complete, read and interpret information in tables, including timetables.
- interpret and construct pie charts and line graphs and use these to solve problems.

- [Statistics \(KS3\)](#)

Pupils should be taught to:

- describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers).
- construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data.
- describe simple mathematical relationships between two variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs.

[English KS3](#)

- Speaking

Pupils should be taught to:

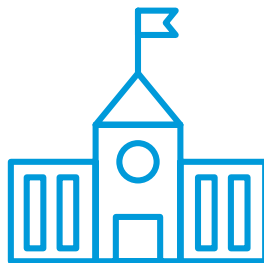
- speak confidently and effectively, including through using Standard English confidently in a range of formal and informal contexts, including classroom discussion.
- speak confidently and effectively, including through giving short speeches and presentations, expressing their own ideas, and keeping to the point.
- speak confidently and effectively, including through participating in formal debates and structured discussions, summarising and/or building on what has been said.
- using Standard English confidently in their own writing and speech.

- Writing

Pupils should be taught to:

- write accurately, fluently, effectively and at length for pleasure and information through:
 - summarising and organising material, and supporting ideas and arguments with any necessary factual detail.

- applying their growing knowledge of vocabulary, grammar and text structure to their writing and selecting the appropriate form.
- plan, draft, edit and proofread through:
 - considering how their writing reflects the audiences and purposes for which it was intended.
 - amending the vocabulary, grammar and structure of their writing to improve its coherence and overall effectiveness.
 - paying attention to accurate grammar, punctuation and spelling; applying the spelling patterns and rules set out in English appendix 1 to the key stage 1 and 2 programmes of study for English.

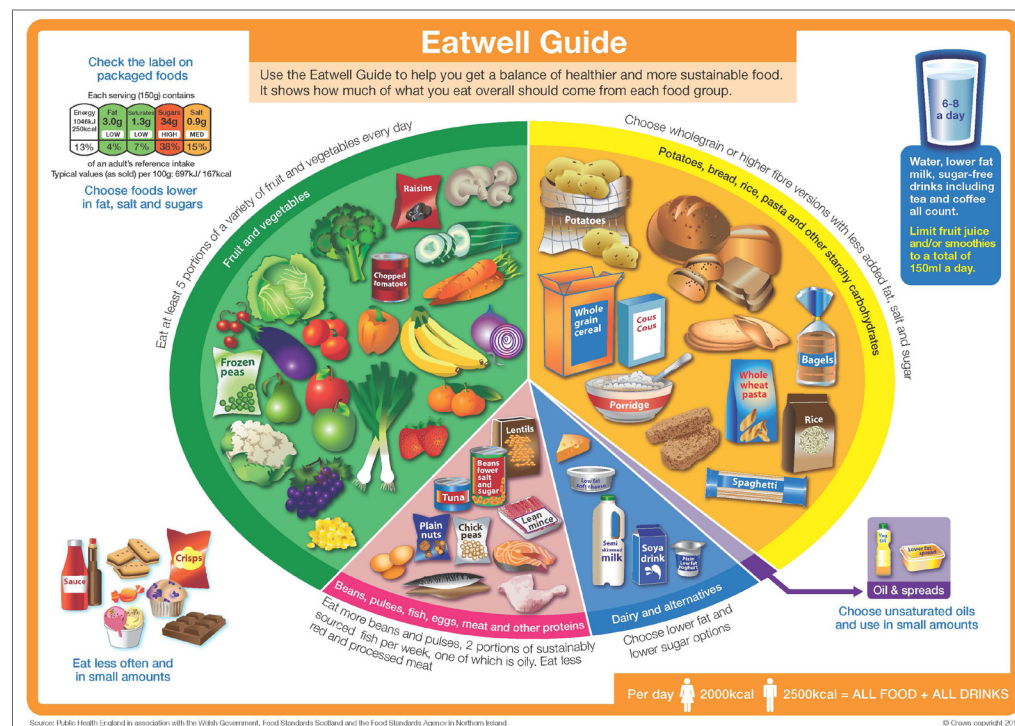


NATIONAL RECOMMENDATIONS

Activity Recommendation—60 Minutes a Day



Nutritional Recommendation—Eatwell Guide



NCDs cause more than four fifths (89%, around 41 million) of all annual deaths in the United States.¹

¹ WHO, "Noncommunicable diseases," fact sheet, June 2018. https://www.who.int/nmh/countries/gbr_en.pdf.

STAYING HEALTHY ACROSS THE GLOBE WEBQUEST, PAGE 1 OF 2

COUNTRY: _____

Can you find the country's recommendations on daily nutrition? If so, log the website here and try to summarise below:

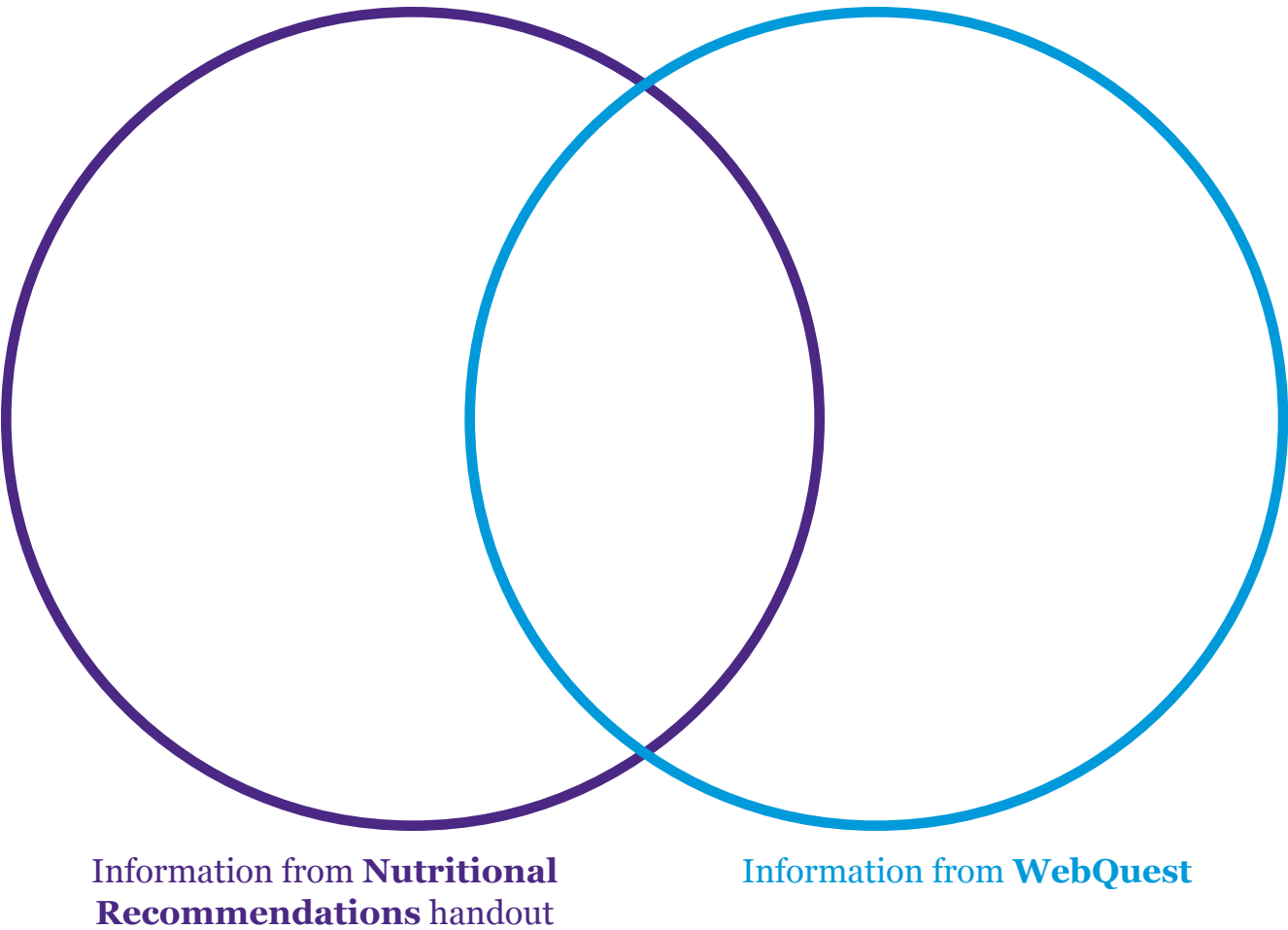
List at least five snack foods from this country:

Can you find the country's recommendations on daily physical activity? If so, log the website here and try to summarise below:

List the main forms of physical activity in this country:

STAYING HEALTHY ACROSS THE GLOBE WEBQUEST, PAGE 2 OF 2

Review your **National Recommendations** handout. Compare and contrast the information you just researched with your own country. Label one side of the diagram with your own country and the other side of the diagram with the country you were assigned to research.



How many people die of NCDs in this country each year?

Based on your research and what you have learned about your own country, what conclusions can you draw?