

# 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

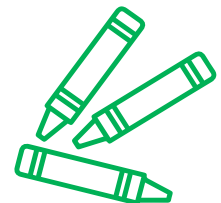
Students will:

- 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 reference 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.
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 Ireland, potatoes are a staple ingredient and can be found in some form as part of many meals.

## VIRTUAL FACILITATION OPTIONS

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

## 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:

- 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.

## 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.



## 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 healthier 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 a “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 to 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' reflection 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.

## Junior Cycle Curriculum Home Economics

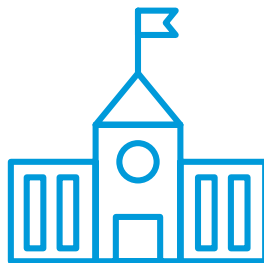
- SOL 9: The student understands the origins and impacts of social, economic, and environmental aspects of the world around her/him.
- SOL 10: The student has the awareness, knowledge, skills, values and motivation to live sustainably.
- SOL 11: The student takes action to safeguard and promote her/his wellbeing and that of others.
- SOL 13: The student understands the importance of food and diet in making healthy lifestyle choices.

## Junior Cycle Curriculum Maths

- SOL 15: The student recognises the potential uses of mathematical knowledge, skills and understanding in all areas of learning.
- SOL 16: The student describes, illustrates, interprets, predicts and explains patterns and relationships.
- SOL 17: The student devises and evaluates strategies for investigating and solving problems using mathematical knowledge, reasoning and skills.
- SOL 18: The student observes and evaluates empirical events and processes and draws valid deductions and conclusions.
- SOL 24: The student uses technology and digital media tools to learn, communicate, work and think collaboratively and creatively in a responsible and ethical manner.

## Junior Cycle Curriculum English

- SOL 1. The student communicates effectively using a variety of means in a range of contexts in L1.
- SOL 3. The student creates, appreciates and critically interprets a wide range of texts.
- SOL 6. The student appreciates and respects how diverse values, beliefs and traditions have contributed to the communities and culture in which she/he lives.
- SOL 24. The student uses technology and digital media tools to learn, communicate, work and think collaboratively and creatively in a responsible and ethical manner.



## NATIONAL RECOMMENDATIONS

### Activity Recommendation—60 Minutes a Day

**MORE SCHOOLS, MORE ACTIVE, MORE OFTEN**

**60**

ALL children require 60 minutes of moderate to vigorous physical activity EVERY day.

80% of Irish children DO NOT reach this target.

**ACTIVE CHILDREN**

- CONCENTRATE AND LEARN BETTER**
- PRESENT FEWER DISCIPLINE PROBLEMS**
- ACHIEVE HIGHER TEST RESULTS**
- ENJOY SCHOOL MORE**

### Nutritional Recommendation—Food Pyramid

**Healthy Food for Life** [www.healthyireland.ie](http://www.healthyireland.ie)

**The Food Pyramid** For adults, teenagers and children aged five and over

**NOT every day** **Maximum once or twice a week**

**Foods and drinks high in fat, sugar and salt**

**Fats, spreads and oils** **In very small amounts**

**Meat, poultry, fish, eggs, beans and nuts** **2 Servings a day**

**Milk, yogurt and cheese** **3 Servings a day** **5 for children age 3-12 and teenagers age 13-18**

**Wholemeal cereals and breads, potatoes, pasta and rice** **3-5 Servings a day** **Up to 7\* for teenage boys and men age 19-50**

**Vegetables, salad and fruit** **5-7 Servings a day**

**Daily Servings Guide – wholemeal cereals and breads, potatoes, pasta and rice**

Active	Child (5-12)				Adult (13-50)			
	3-4	4	4-5	3-4	Inactive	Teenager (13-18)	Adult (19-50)	Adult (51+)
♀	3-4	4	4-5	3-4	♀	3	3-4	3
♂	3-5	5-7	5-7	4-5	♂	4-5	4-6	4

**Drink at least 8 cups of fluid a day – water is best**

**Get Active**  
To maintain a healthy weight adults need at least 30 minutes a day of moderate activity on 5 days a week (or 150 minutes a week); children need to be active at a moderate to vigorous level for at least 60 minutes every day.

There is no guideline for inactive children as it is essential that all children are active.  
Source: Department of Health, December 2016.

In Ireland, up to 91% of deaths reported annually are due to NCDs.<sup>1</sup>

<sup>1</sup> Trinity College seminar on non-communicable disease prevention. April 2019.

**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:

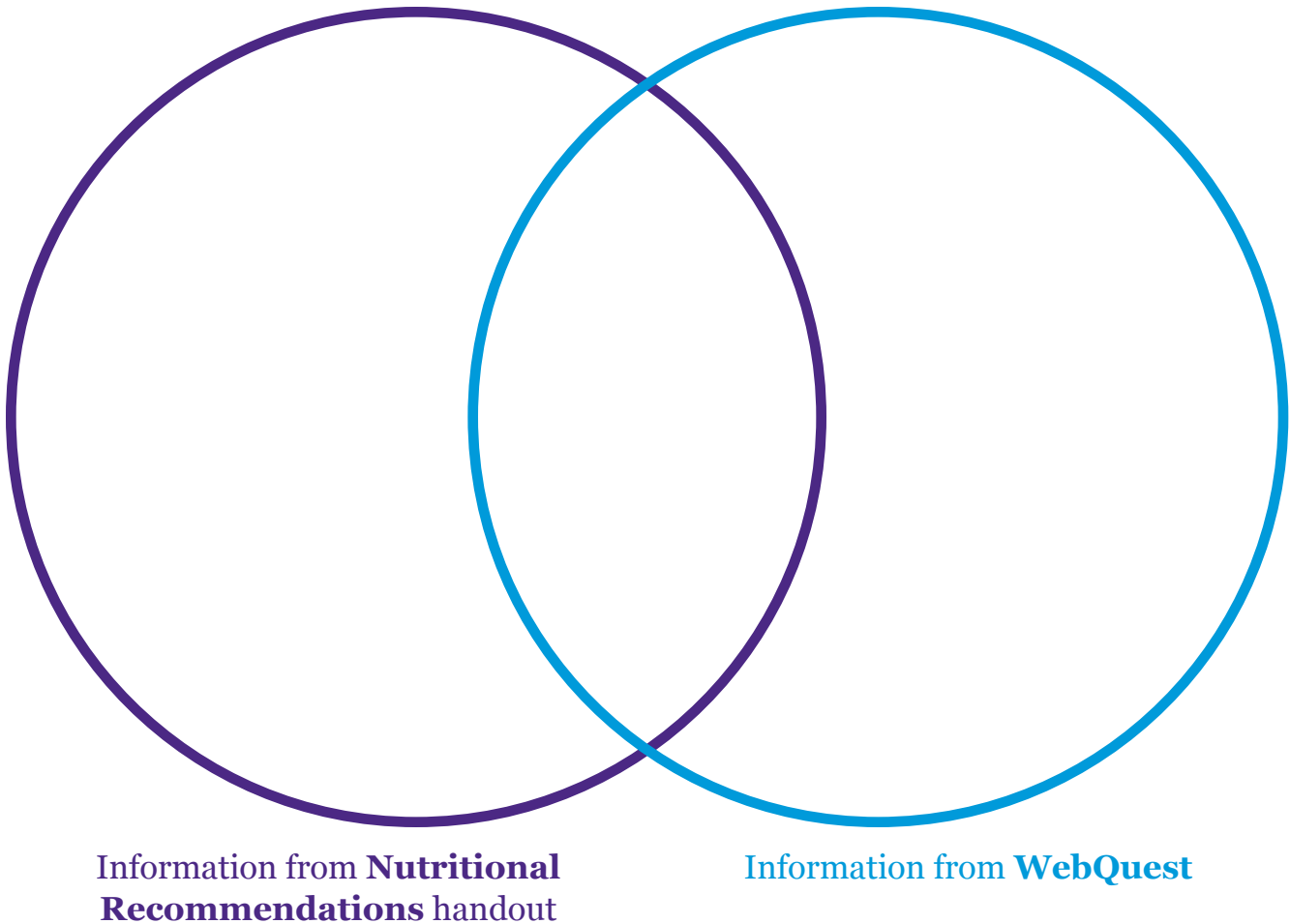
List at least five snack foods from this country:

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?