

NCD Challenge Introduction Lesson

Curriculum links:

- Computing: Innovation to address real-world problems
- Geography, Citizenship, Maths, PSHE, Science, P.E.

Skills: Researching, summarising, analysing, problem solving, creative thinking.

Resources: Teacher Guide (presentation download, lesson plan download, worksheet download, a range of country profiles printed for your class from the [WHO NCD country profile list](#) (p.14 onwards), [obesity article](#) (if using).

Introduction

This lesson introduces students to the Global Challenge: non-communicable disease. They learn about the UN's sustainable development goals, the global challenge and what is meant by the term 'non-communicable disease' (NCD), increasing their knowledge and understanding of how and why they affect children all over the world.

Teacher guide:

Learning objectives

- To understand why the UN has set sustainable development goals
- To know what is meant by the term non-communicable disease (NCD)
- To be able to discuss how NCDs affect children from different parts of the world.

Agenda

- Introduction to World's largest lesson (5 mins)
- Introduction to NCDs (10 mins)
- Class discussion (5 mins)
- Country profiles activity (15 mins)
- Optional global obesity activity (10 mins)
- What can be done? (5 mins)
- Introducing the Micro:bit challenge (5 mins)
- Wrap up (5 mins)

Introduction

- Watch this World's largest lesson animation <https://vimeo.com/178464378> (slide 3).
- If you wish to spend more time focussing on the global goals, use [this lesson](#) or [this lesson](#) from the [global goals website](#).
- Explain to students they will be focussing on designing innovations to address Goal 3: Health (slide 4) and specifically 3.4 non-communicable diseases (slide 4). (If you wish to give your students a choice between NCDs and Safety, you may wish to use the activities in the '[Introduction to safety challenge](#)' lesson).

Activities

Introduction to non-communicable diseases

- Give out the [NCD fact sheet](#) and [worksheet](#) to pairs. They should read the fact sheet and answer the questions on the worksheet (slide 5).
- If you prefer you could ask students to research NCDs on the web and summarise their findings; <http://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases> and the fact file at http://www.who.int/features/factfiles/noncommunicable_diseases/en/ are good places to start.

Class discussion

- Go through the worksheet answers with students to ensure common understanding (there are 19 possible answers if you wish them to self-score).
- Use the discussion to highlight the inequality that exists and highlight that depending on where you live and your environment, you have more/less chance of contracting a NCD.

Country profiles

- Give out the country profiles you have printed off to students and give them a few minutes to read and digest the card.
- Create, or move to, a space that your students can move around in and ask them for different ways they can sort the countries according to their cards. For example:
 - Order themselves from smallest to largest % probability of NCD. Discuss why they think the countries at the top and the bottom are in those positions.
 - Group themselves by continent, then work out the average probability of dying from one of the 4 main NCDs (get one pupil to record the % then they can work out the average % and share with the class). Which continent has the highest/lowest probability and why do they think that's the case?

Additional research activity: increase in global spread of obesity

- Depending of the age and ability of your students, [print this article](#) showing levels of obesity and how they are rising across the globe. Ask students to read and summarise it in pairs, or alternatively show it on the board and talk it through with them.
- Discuss points such as:
 - Comparing the world maps images, what differences are there between obesity rates of boys and girls?
 - Which countries have the highest rates of obesity? Would you have predicted that and if not, why not?
 - What reasons do you think there are for the growing obesity rates across the globe?
 - Why do you think East Asia, Latin America and the Caribbean have 'seen a shift from underweight to obesity within the space of a few decades'?

What can be done?

- Remind students of the SDG target to reduce premature deaths from NCDs by one-third by 2030 (slide 6) and introduce the sugar tax and smoking bans to students (slide 7), explaining these are two ways the UK government is trying to address early deaths from NCDs.
- Invite students to think/pair/share other ideas they are aware of (e.g. eating 5-a-day, encouraging people to walk 10,000 steps etc - you can link this to your school's initiatives) and to come up with their own ideas for other ways governments around the world could help tackle problems.

Introducing the Micro:bit Global Challenge.

- Remind students that you said they were going to be focussing on innovation to help address the challenge.
- Introduce the challenge to students (slide 8) and explain that you will start working on this next lesson. (If you wish to give your students a choice between NCDs and Safety, you may wish to use the activities in the Introduction to safety challenge' lesson).

Lesson wrap up

- Ask students to write down 3 things they have learnt today about NCDs and/or life around the world for different children. Choose a selection to share with the class.

Extension / homework

- You could extend this activity by asking students to research what it is like to live as a child in the country they are given in the 'where in the world' activity and create a poster.
- You could start a working wall for this topic using the display resources.

Differentiation

Support:

- Students may benefit from supportive pairings and sensitive help during the activities.

Stretch & challenge:

- Challenge students to consider, or research, more complex reasons for why particular countries have high incidents of NCDs (e.g. war, climate, government stability) and how NCDs can be prevented (and the barriers to these).

Opportunities for assessment:

- Formal assessment if wished of worksheets
- Informal assessment during questioning opportunities and group activities.