Smoking

Background, National Curriculum links and suggested aims

This lesson is intended for use when teaching about smoking (cigarettes) to Years 7-9. It has been written for use in a Biology lesson.

Teacher background knowledge

No special background knowledge required for a Biology teacher.

Cross-curricular links

There are links to Economics and to Politics, not in the sense of party politics but issues to do with disagreement and regulation. There are also some links to Psychology.

Student background knowledge

None required.

Resources and timing

If students have access on school premises to the internet so that they can work in groups of two or three, each group having its own internet access, one lesson of 50 minutes should suffice. An alternative is for the activities to be spread over two shorter lessons with the internet research done by individual students between the two lessons (e.g. as homework).

Activities

1. The health consequences of cigarette smoking are well covered in standard school biology textbooks. As either fresh teaching or revision, get students to appreciate that:

    a. In many countries, including the UK, smoking is the leading cause of deaths that can easily be prevented.

    b. Smoking increases the risk of dying from almost anything.

    c. People who smoke are much more likely to suffer from cardiovascular diseases (diseases of the heart and blood vessels). Smoking damages blood vessels. As a result, blood pressure increases and the heart beats faster, which can cause it to fail. Clots can also form, which means that strokes are more likely.

d. Smoking can cause diseases of the gaseous exchange system, including lung cancer, emphysema and chronic bronchitis. It also makes asthma worse.

e. Smoking increases the risk of developing virtually every cancer.

f. In both males and females, smoking decreases fertility.

g. Smoking increases the chances of developing many other diseases, including type-2 (adult-onset) diabetes, cataracts and rheumatoid arthritis.

h. The more cigarettes a person smokes, the worse the health consequences.

i. Improvements to a person's health start as soon as they stop smoking.

j. In many countries, including the UK, smoking rates have fallen greatly in recent years. However, in many other countries, they are increasing.

2. Get students to research the economic importance of cigarettes. The actual figures that the students come up with are not as important as students realising that the economic consequences are quite complicated; it isn't easy to determine, for example, whether cigarette smoking is good or bad for the UK from an economic perspective. Students may need prompting to think about:

a. The financial cost to individuals (e.g. smoking five cigarettes a day for a year, for forty years, ten cigarettes a day for a year, for forty years, twenty cigarettes a day for a year, for forty years). Don't worry about trying to take account of inflation or interest rates.

b. The number of people employed in the tobacco industry (in the UK, worldwide).

c. The economic benefits to governments from taxation.

d. The economic consequences of greater illness (including, in the UK, costs to the NHS) and of earlier death (more complicated and depends on age of death – could be a loss of tax revenue to the government if someone dies while still paying income tax, but also consider someone who dies soon after starting to draw their state pension as opposed to living an additional ten or twenty years).

3. Get the students to think about and research tobacco advertising (probably best if each working group focuses on just one country). There are two main aspects to this:

a. How tobacco companies recruit new cohorts of smokers to replace those who have died or stopped smoking.

b. How increasing numbers of countries have restricted tobacco advertising and now require more direct health warnings.

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4. Get students to think about and research the politics of tobacco. By this is meant such things as:

    a. Who is in favour of promoting increased consumption of tobacco and why?
    b. Who campaigns against cigarette smoking and why?
    c. What claims are made by those on each side of the arguments?
    d. When claims come into conflict, are they claims about basic science, human health, economics, issues to do with humans being free to make choices as opposed to avoid being harmed or what?
    e. How can such conflicting claims be evaluated? Is it helpful or unhelpful to think of the conflict over cigarettes as a 'wicked problem'?

Extension activity

■ You might get students to think about whether governments have the right to try to persuade people not to start smoking or to give it up if they already smoke. Encourage students explicitly to provide arguments to support their contentions.

Resource links

■ You will need to decide whether to recommend pro-smoking websites to students or not.

■ Health consequences of smoking and giving up smoking: https://www.medicalnewstoday.com/articles/324644.php#lung-damage, https://www.nhs.uk/live-well/quit-smoking/.

■ Tobacco economics: https://ash.org.uk/information-and-resources/fact-sheets/the-economics-of-tobacco/, https://www.who.int/tobacco/economics/en/, https://www.pmi.com/our-business/about-us/products/tobacco-economics, https://www.theguardian.com/world/2017/jul/11/how-big-tobacco-has-survived-death-and-taxes.

■ Tobacco advertising: https://www.politics.co.uk/reference/tobacco-advertising, https://scienceblog.cancerresearchuk.org/2017/05/19/this-is-the-end-of-tobacco-advertising/.

■ Tobacco politics: https://en.wikipedia.org/wiki/Tobacco_politics, https://blogs.bmj.com/tc/2018/06/19/the-tobacco-industrys-latest-scam-how-big-tobacco-is-still-facilitating-tobacco-smuggling-while-also-attempting-to-control-a-global-system-designed-to-prevent-it/, https://www.who.int/news-room/fact-sheets/detail/tobacco.

■ Wicked problems: https://www.wickedproblems.com/1_wicked_problems.php.