

Understanding Sustainability

Sustainable development questions

Directed questions based on the www.sustainability-ed.org web site.

Sustainable development questions

Students use the web site www.sustainability-ed.org to answer questions relating to sustainable development (30minutes). It can be given as class work or as a homework if access to the internet is available.

Level: KS4

Questions assess students understanding of sustainable development / ability to gather information from the [www.sustainability-ed](http://www.sustainability-ed.org) web site.

Resources Access to www.sustainability-ed.org

Activity Students use web site to answer questions on sustainable development.

Answers 1 - Write down a definition for sustainable development.

There are several definitions. The web site lists:

Brundtland report (World Commission on Environment and Development)

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Forum for the Future

"Sustainable development is a dynamic process which enables all people to realise their potential and to improve their quality of life in ways which simultaneously protect and enhance the Earth's life support systems".

2a - Explain what is meant by social sustainability.

Addresses the needs (and to a lesser extent the wants) of people. Things like ensuring access to education, healthcare, housing, food, clean drinking water etc. Could also mention aspects such as convenience and affordability. E.g. if public transport is too expensive for people, then it is not socially sustainable (nor is it economically sustainable also).

2b - Explain what is meant by economic sustainability.

Looks at the generation of wealth for individuals, businesses and also nations. This wealth then allows social and economic aspects to be addressed. For example, the creation of jobs will allow people to improve their lifestyles and, in the most severe cases, release them from poverty.

2c - Explain what is meant by environmental sustainability.

Possibly the most usual sector linked with sustainable development. Environmental impacts look at the use of natural resources (many are finite) and the disposal of waste.

3a - How much carbon dioxide you are responsible for each year?

Typically somewhere between 7 – 15 tonnes per year for a resident of the UK.

3b – What effect is increased levels of carbon dioxide in the atmosphere having on the environment?

Leading to increased global warming. Effects of global warming are climate change. May describe more extremes in weather conditions such as droughts, floods, hurricanes, prolonged summers and wetter winters in the UK.

3c - Suggest ways that you could reduce the amount of carbon dioxide you produce.

Suggestions may include using more public transport, cutting electricity consumption, reducing heating levels, fly less, use the car less etc.

3d - What is the Kyoto agreement?

Kyoto conference (1997) looked at reducing global emissions of greenhouse gases. Targets to reduce emissions to an average of 5% below 1990 levels by 2012.

Treaty also set in place 'carbon trading' concept. Countries had permitted levels of CO₂. Low CO₂ producers can sell their allowances to high CO₂ producers.

4 - Briefly list some of the social and environmental issues that are facing the earth's increasing population.

Range of any sensible issues. May include providing housing for all, clean drinking water, accessibility to health care, tackling climate change, developing 'clean' energies, problems associated with increasing urbanisation of population, reducing production of wastes, using natural resources more effectively, tackling deforestation etc.

Sustainable Development

Your task

Visit www.sustainability-ed.org and then answer the questions.

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Visit www.sustainability-ed.org and then answer the questions.

Questions

- 1 Write down a definition for sustainable development.

- 2 Sustainable development has three linked parts:
 - Social
 - Environment
 - EconomicThese are sometimes called 'People, planet and profit.'
 - a Explain what is meant by social sustainability.
 - b Explain what is meant by economic sustainability.
 - c Explain what is meant by environmental sustainability.

- 3 Go to the 'Are you sustainable' section of the web site. Click onto the Carbon Calculator.
 - a Use the carbon calculator.
How much carbon dioxide you are responsible for each year?
 - b What effect is the increased level of carbon dioxide in the atmosphere having on the environment?
 - c Suggest ways that you could reduce the amount of carbon dioxide that you produce.
 - d What is the Kyoto agreement?

- 4 The Earth's population is currently around 6.5 billion people.

Briefly list some of the social and environmental issues that are facing the earth's increasing population.