

2. Our Environment

WORKSHOP 2
IT'S ABOUT US



Aim: To introduce the concept of Sustainable Development and our shared values



Objectives: Young people will...

- Be informed about the issues facing the planet.
- Explore the vulnerability of our ecosystem and atmosphere.
- Consider their role and responsibility addressing these issues.

You will need: Balloons, Sellotape, ballpoint pens.



4m

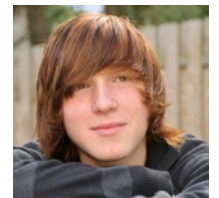
View:

- [What is Sustainability?](#)



Handout:

- 'Our World, Our Impact' fact sheet or display it on the whiteboard.



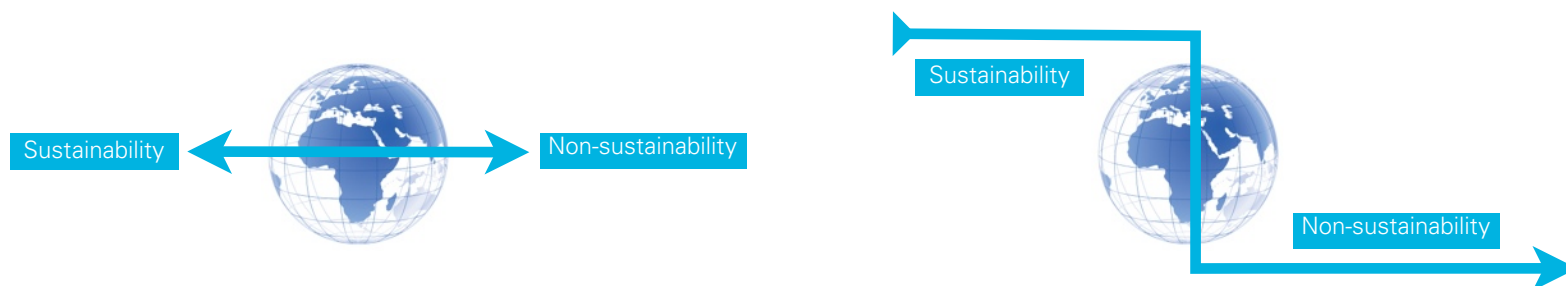


20m

Activity: Our Sensitive Planet

- Depending on class size, do the exercise in a large group or divide the class in half.

A sustainable world is a world in which our planet can meet the needs of our present society without compromising the needs of future societies. To do this we need to find a balance between an economic system that can sustain a just social system within a finite ecosystem. This can be a difficult balance to reach and many suggest we are at a cliffs edge and need to make rapid changes before it is too late. **See if you are able to make the changes in time.**



1. Blow up a balloon fully. Hand it to a student and ask them to think of or read out an issue the planet is facing that we need to change (they can use the handout provided).
2. Ask them to take a piece of tape and stick it to the balloon. Write the issue on the tape using a ballpoint pen. Pass it to the next person.
3. The next person must remove this piece of tape unless they have done something to deal with this issue (example Pollution: they cycle to school instead of drive).
4. Once they have removed the tape they can then read out and add the next issue to the balloon and pass it on. Repeat.

- **Note: If the balloon bursts early you can start another. If it doesn't burst they have succeeded in sustaining the delicate balance of the earth.**



10m

Discussion Points: How did you feel about this exercise?

- Does it represent how you feel about our planet?
- Do you feel a sense of urgency to change the way we are managing our planet?
- Do you feel you can make a difference or are you overwhelmed by all the information and feel powerless?



3m

View:

- [Youth Sustainability Challenge](#) - YSC Video Carmel Green Teen Micro-Grant Program. In this video young people talk about ways they have improved their environments.
- **Note: If you have more time these are a few more 3 minute videos, inspiring young people to get involved and make a difference.**
- [Growth](#)
- [Chloe Maxmin](#)
- [Secret Life of the Mobile Phone](#)



5m

Closure: “The future depends on what you do today.” [Mahatma Gandhi](#)

- Write down a pledge of what you plan to do with the information you have learned today.



10m

At Home:

- Handout and assign a profile card to each student.
- Ask students to visit the It's About Us website and view the [matching video](#) from their profile card. Answer the questions on their sheet.

Our World, Our Impact



Issue:		Fact:	Source:
1	Climate Change	CO2 is responsible for 2/3 of all additional warming caused by humans.	IPPC February 2007 Report.
2	Global water crisis	3 times more water is being used today compared to 50 years ago, compared to only a twofold increase in population.	"Out of Water: From Abundance to Scarcity" - Chatres & Varma.
3	Poverty	Over 80% of the world lives on less than \$10 a day.	www.globalissues.org/article/26/poverty-facts-and-statistics
4	Overpopulation	We have already overshoot the world's carrying capacity.	www.earthday.org/blog/2013/08/20/earth-overshoot-day-2013
5	Deforestation	An area of trees the size of Ireland is destroyed each year in the Amazon.	www.greenfacts.org/en/forest/l-3/2-extent-deforestation.htm#3p0
6	Malnutrition	1/8 of the world's population is malnourished.	www.worldhunger.org
7	Inequality	The top 10% of U.S. households control 73.1% of the wealth in the U.S.	"Recent Trends in Household Wealth in the U.S." - Levy Economics Institute.
8	Sanitation	88% of all waterborne diseases are caused by inadequate sanitation.	World Bank / "All About: Water and Health" - CNN 2007.
9	Biodiversity	Many of these issues cause dwindling biodiversity, and biodiversity is key to ecological stability.	http://www.ncbi.nlm.nih.gov/pubmed/23346947
10	Air Pollution	At one time, volcanic activity was the main cause of air pollution, now humans are.	http://www.thenakedscientists.com/HTML/questions/question/2008/
11	Soil Pollution	The increase in acid rain, fertilizer run-off and rising temperatures are polluting waters and reducing aquatic biodiversity.	http://www.sciencelearn.org.nz/Contexts/Life-in-the-Sea/Science-Ideas-and-Concepts/Human-impacts-on-marine-environments
12	Overconsumption	The first world consumes 32 times more resources than the third world.	http://www.theatlantic.com/past/docs/issues/97jun/consume.htm
13	Overfishing	If current fishing rates continue, ALL of the world's fisheries will collapse by 2048.	Science Magazine 2006.
14	Food waste	Up to 50% of all food produced is wasted.	"Global Food; Waste Not, Want Not" - IMechE.
15	Ozone depletion	Most Ozone depletion occurs as a result of CFC's and halocarbons from industrial processes. Most of these chemicals are now banned worldwide.	www.newscientist.com
16	Waste/Landfill	Over 40 million tonnes of landfill gas is produced annually. This contains trace amounts of Mercury gas, a harmful toxin.	www.ghgonline.org

Issue:		Fact:	Source:
17	Energy consumption	86% of the world's energy is generated from non-renewable resources.	The U.S. Energy Information Administration.
18	Acid Rain	Aquatic life is sensitive to pH, as a result, acid rain harms many aquatic organisms.	http://www.epa.gov/acidrain/effects/surface_water.html
19	Dead zones in oceans	These areas of water contain almost no oxygen, due to algal bloom. As a result, aquatic life is killed off.	http://oceanservice.noaa.gov/facts/deadzone.html
20	Species Extinction	The current rate of species extinction is 100-1000 times greater than before humans.	"IUCN Red List - Species Extinction - the Facts".
21	Urbanization	Today, almost half the population of the planet lives in an urban environment.	UN-HABITAT - World Urban Forum 3 - Urbanization Facts & Figures.
22	Dwindling natural resources	1.5 earths worth of resources are consumed each year. This is due to rise to 2 by the end of the century.	www.earthday.org/blog/2013/08/20/earth-overshoot-day-2013
23	Proliferation of weapons	There are currently 20000 nuclear warheads in existence, more than enough to effectively end life as we know it.	www.ploughshares.org
24	Desertification	The rate of desertification increases exponentially with loss of vegetation from over farming.	"Mediterranean Desertification" - Geeson, Nichola et al.
25	Electronic Waste	In Guiya, China (the e-waste capital of the world) 82% of children have dangerous levels of lead in their blood.	Prof. Huo Xia, Shantou University Medical College.
26	Light pollution	The excess light wastes energy, adding to CO2 emissions	"Public Lighting - Energy Efficient Street Lighting" www.environment.gov.au
27	Pollinator decline	Bees account for much of the pollination of food crops. Their loss would devastate food production.	Roger Morse & Nicholas Calderone (Cornell University).
28	Rising ocean temperatures	Higher temperatures lower the oxygen content of water, leading to widespread aquatic devastation.	http://water.epa.gov/type/rs/monitoring/vms52.cfm
29	Energy consumption	China is burning almost as much coal as the rest of the world combined.	U.S. Energy Information Administration.
30	Food Shortage	The world's cattle alone consume an amount of food equal to the caloric needs of 8.7 billion people.	http://www.greenpeace.org/usa/en/multimedia/goodies/green-guide/green-lifestyle/go-vegetarian/
31	Greenhouse Gases	Worldwide livestock farming generates up to 18% of the planet's greenhouse gas emissions — by comparison, all the world's cars, trains, planes and boats account for a combined 13% of greenhouse gas emissions.	Read more: Meat: Making Global Warming Worse - TIME http://content.time.com/time/health/article/0,8599,1839995,00.html#ixzz2kM0dwpLR
32	Waste/landfills	Every day, America produces waste equal to the weight of the Empire State Building.	http://www.unep.org/wed/quickfacts/
33	Recycling	Recycling one aluminum can saves enough electricity to power a TV for three hours.	http://www.recycling-revolution.com/recycling-facts.html