

Development Education opportunities for Junior Cycle Mathematics

Relevant Statement of Learning (SoL)

SoL 16 The student describes, illustrates, interprets, predicts and explains patterns and relationships
 SoL 17 the student devises and evaluate 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

Curriculum links

Data related to local and global justice can be examined when studying ***Statistics and Probability***

Sample learning activities

Make **fractions, percentages and ratios** real for your students by watching this short BBC video which calculates food waste and the environmental cost

<http://www.bbc.co.uk/learningzone/clips/calculating-food-waste-and-the-environmental-cost/13621.html>

Look at the Maths resources developed by Oxfam in ‘*The World Cup- A Fair Game?*’ Pupils will use fractions, probability, percentages and ratios to compare World Cup countries.

<http://www.oxfam.org.uk/education/resources/the-world-cup-a-fair-game>

Go to page 4 of ‘*Bread not Bombs*’ where you’ll find some activities comparing the costs of war to other spending.

<https://pod51050.outlook.com/owa/?ver=16.0.347.7&cver=16.0.326.8&cf=0&vC=1#path=/mail>

Handling data – looking at development indicators

A development indicator is a measure than can be used to show the relative wellbeing of the population of the country. Two examples of development indicators are a country’s life expectancy and infant mortality.

Suggested activity:

Draw a scatter graph of life expectancy and infant mortality for a range of countries across the world Does your graph show a positive or negative correlation? What does this tell us? What type of correlation would you expect if you drew a scatter graph of secondary school enrolment and adult literacy? Daily calorie intake and life expectancy?

Statistics

Using a short film, PPTs and student worksheets, students are introduced to statistics related to women’s life expectancy and incidents of death due to childbirth. Students learn key mathematical skills to graphically represent data from around the world, comparing reasons of maternal mortality in different countries and geographic regions.

<http://www.amnesty.org.uk/resources/lesson-dying-give-birth#node-8062>

Check out this website which uses grains of rice to make abstract statistics come to life

<http://www.stanscafe.co.uk/project-of-all-the-people.html>

This video is good starting point <https://www.youtube.com/watch?v=OJobelK61gg>

Here the presenter explains how each grain of rice = one person. The videos shows how quantities of rice represent a host of human statistics which can be moving, shocking, witty and thought provoking.

Useful resources and weblinks

If the world were 100 people?

http://www.100people.org/statistics_100stats.php

http://www.developmenteducation.ie/blog/2014/03/how-many-africans/?utm_source=rss&utm_medium=rss&utm_campaign=how-many-africans

World hunger statistics short video - <https://www.youtube.com/watch?v=THsYslvLtvk>

Animated statistics related to lots of topics of interest <http://www.gapminder.org/data/>

Website with links to reliable and current data <http://data.worldbank.org/indicator>

These slides presentations have been developed by young Maths teachers and present ideas on how to integrate Development Education into the Maths curriculum

<http://www.ubuntu.ie/teaching-resources/using-maths-dev-ed.html>

<http://www.ubuntu.ie/teaching-resources/maths-dev-ed.html>

Some interesting stats on the topic of Conflict and military spending

<http://www.globalissues.org/article/74/the-arms-trade-is-big-business> - this is a very good page on the arms trade with lots of good links – text is short and snappy and easy to read.

<http://www.globalissues.org/issue/73/arms-trade-a-major-cause-of-suffering> - same website

www.developmenteducation.ie You can search by subject or topic