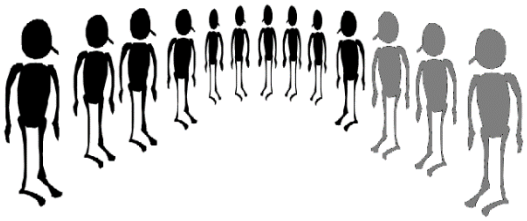
Activity 2: The Lolly Game – Modelling Global Resource Distribution

Students take part in a human model to visualise statistics relating to global wellbeing and resource distribution and consider what this reveals about inequality globally and within Australia.

Setting up the model

Ask the group to stand on their chairs forming an arc representing all the people in the world. Read the instructions in the table below that relate to a class of 30 students. For smaller or larger groups, substitute the numbers in red with data from the appropriate class size column.



	Instructions for the model	Class Size					
		15	20	25	30	35	50
Global population	"The world population is currently just over 7 billion people so each person represents **3.3%** of the world's population."	6.7	5	4	3.3	2.9	2
Lacking adequate sanitation 36%	"The first **11** people should now stand on the floor. These people represent the **36%** (2.6 billion people) of the world without adequate sanitation. Being without adequate sanitation means not having somewhere safe and clean to go to the toilet and wash afterwards, and is a major cause of preventable illness and death."	6	7	9	11	13	18
Extreme poverty 20%	"The first **6** people standing on the floor are to sit down on chairs, as they represent the **20%** (1.4 billion people) of the world suffering extreme poverty. Extreme poverty is defined as living on less than $US1.25 per day (A cause for hope is that 20 years ago this figure was 43%)."	3	4	5	6	7	10
Lacking adequate shelter 14%	"The first **4** of this group should now sit on the floor to represent the **14%** of world population who do not have access to adequate shelter. This could mean they lack security from forced eviction, have insufficient living space or may be exposed to hazardous locations and extreme weather conditions." "This same group should put their hands on their stomachs as they also represent the **13%** of world population who experience hunger every day, and the **12%** of the world that don't have access to clean water."	2	3	4	4	5	7
Hunger 13%		2	3	4	4	5	6
Lacking clean water 12%		2	3	3	4	4	6
Child labourers 3%	"Finally the first **1** of those sitting on the floor should lie flat on their backs representing the **3.2%** of world population that are child labourers."	0	1	1	1	1	2
Use most of the world's available resources 10%	"Of those still standing on chairs, **3** of you [preferably choose one female and two males to model gender distribution] should put your hands on your heads to represent the **10%** of the world that has most of the world's available resources. The remaining people standing on chairs represent those in the world that have modest incomes - 'just enough' to feed, house, and clothe themselves."	1 or 2	2	2 or 3	3	3 or 4	5
Wealth shared by the richest 10%	"The lollies in this bag represent the wealth of the world. There is enough for each person to have a lolly but we are going to share them as wealth is currently shared in the world. The richest 10% have **25** lollies." Hand them out to those at the top of the arc, giving more to males if possible.	13	17	21	25	30	43
Wealth shared amongst the bottom 90%	"The rest of the people in the world have **5** lollies to share between them all." Place them in the middle of the group.	2	3	4	5	5	7

Discussion
Allow the group some time to examine the model, and if students comment on the unfairness of the lolly distribution and attempt to redistribute them, allow this for a short time. Given the limited selection of statistics in this model it is important that discussion follows shortly after to give students the opportunity to debrief, and to prevent giving an unduly hopeless impression of the state of the world.

This model can be used to demonstrate a number of potential issues with measuring well-being using economic and social indicators. Display and discuss these issues as a class, one at a time.

So what have we learnt about?

- **Wealth Distribution –** How did those sitting feel when I gave them their 5 lollies? How did those standing feel? Did anyone think about how they were going to share them? Did anyone think about how they might get some of the larger pile of lollies? Why or why not? Would those standing have felt any different if they did not know that the others only got 5 to share?
- **Global averages -** This is a global view of the world, showing the averages for all nations, not a country-by-country view. What can we learn about individual countries from global averages? Do you think it is accurate to describe a country as rich or poor? Why or why not? Which parts of the model are accurate and which parts might give a false perspective of the world.
- **Inequality** - What things are happening currently in the world between countries, or between people in countries that may be related to this unequal distribution of wealth? How would you explain this? It has been argued that this level of inequality is at the core of much of the world's conflict. Do you agree/disagree? Is there anything we can do about it – individuals, groups, governments?
- **Relative poverty -** Where do most Australians fit into this equation e.g. Standing/sitting? (Assets of $US 61000 in top 10% of world wealth distribution, $US2200 in top 50%) On the whole, Australia is one of the wealthiest countries in the world, but we still have many citizens who are homeless, for example. What are some other examples of how individuals can be 'relatively poor' in a country that is wealthy on average? (Australia is second out of 190 countries on the UNHDI – which measures wealth, income, education & health services. We still have inequalities though; 100,000 homeless people for example.)

  "According to our estimates, adults required just $2129 in order to be among the wealthiest half of the world. But more than $61,000 was needed to belong to the top 10 per cent and more than $510,000 per adult was required for membership of the top 1 per cent."
  "The wealth share estimates reveal that the richest 2 per cent of adult individuals own more than half of all global wealth, with the richest 1 per cent alone accounting for 40 per cent of global assets. The corresponding figures for the top 5 per cent and the top 10 per cent are 71 per cent and 85 per cent, respectively. In contrast, the bottom half of wealth holders together hold barely 1 per cent of global wealth. Members of the top decile are almost 400 times richer, on average, than the bottom 50 per cent, and members of the top percentile are almost 2000 times richer."
  http://www.wlu.ca/documents/29348/Davies_et_al_Wealth_Feb_08_NewII.pdf

This activity is adapted from:
A Better World for All – Student Activities by Margaret Calder and Roger Smith, Commonwealth of Australia, 1993

Sources of statistics (2012):

- World population – 7 billion http://www.worldometers.info/world-population/
- Extreme poverty – 24% (fallen 2%) at 2008. 20% good estimates of 2010 data.
  http://mdgs.un.org/unsd/mdg/Resources/Static/Products/Progress2012/English2012.pdf
- Sanitation – 36% (fallen 2%) http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-report-2012-en.pdf
  Not projected to meet MDG
- Clean water access – 12% (fallen 2%) http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-report-2012-en.pdf Met MDG in 2010
  Over 780 million people are still without access to improved sources of drinking water and 2.5 billion lack improved sanitation.
- Hunger – 13% (falling 2% from 3 years ago) http://www.fao.org/publications/sofi/en/
- Child labour – 3% The overall number of children aged 5-17 years in child labour decreased modestly by 7 million from 222 to 215 million over the four years (2004 to 2008).
  http://www.ilo.org/ipecinfo/product/viewProduct.do?productId=13313
- Slums: No global update http://www.unhabitat.org/pmss/getPage.asp?page=bookView&book=1156
- Wealth distribution
  http://escholarship.org/uc/item/3jv048hx#page-8

Curriculum links

There are significant spatial variations in human well-being within nations, at both regional and local scales

Elaborations

1. comparing and explaining spatial inequalities in well-being in Australia and China or another country in Asia
2. investigating the well-being of Aboriginal Peoples and Torres Strait Islander Peoples across Australia
3. explaining that there are multiple uses of local resources (such as minerals, water, marine resources, landscapes and biodiversity), and that these uses have a contestable effect on the local community, including the Aboriginal Peoples and Torres Strait Islander Peoples who belong to that Country/Place
4. assessing the social and political consequences of national spatial inequalities

There are major spatial variations to human well-being at the global scale as demonstrated through the indicators of well-being

1. investigating global inequalities in human well-being, as measured by indicators such as income, nutrition, access to water, shelter, health, education, female equality, child labour and safety
2. analysing the spatial association of different human well-being indicators at varying scales
3. comparing overall human well-being in a developing and developed country