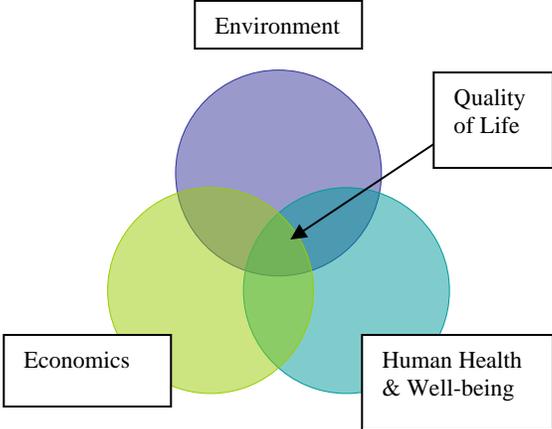


## Lesson 2

<b>Stage 1 – Desired Results</b>	
<p><b>Established Goals:</b>            8-0-7f: Reflect on prior knowledge and experiences to construct new understandings and apply this new knowledge in other contexts.            8-0-8f: Relate personal activities in formal and informal setting to specific scientific disciplines.            8-0-8g: Discuss societal, environmental, and economic impacts of scientific and technological endeavours. Include: local and global impacts.            8-0-9e: Be sensitive and responsible in maintaining a balance between the needs of humans and a sustainable environment.            8-0-9f: Consider both immediate and long-term effects of their actions.</p>	
<p><b>Understandings:</b>  <b>Students will understand that...</b>            There are three aspects to Sustainable Development</p>	<p><b>Essential Question:</b>            How do we learn about water from a sustainability focus?</p>
<p><b>Students will know...</b>            The four systems conditions of The Natural Step.</p>	<p><b>Students will be able to...</b>            Incorporate SD and TNS in decision making</p>
<b>Stage 2- Assessment Evidence</b>	
<p><b>Performance Tasks:</b>            Students will participate in class discussion on Sustainable Development and The Natural Step.</p>	<p>Other Evidence:</p>
<b>Stage 3 – Learning Plan</b>	
<p>Teacher draws a Venn diagram on the board and point to the middle of the diagram as “quality of life” to ask the students the following leading questions:</p> <p>1. What do we as humans need to have a positive “quality of life?” (looking for big-picture ideas) Lead the students toward the understanding that in order to have a good quality of life (and remember that it will differ depending on where you live); we need to have a healthy environment to live in, some money (economics) and to be healthy. All of these contribute to a positive quality of life. Encourage a discussion as to the different degrees in different areas – i.e. you might need less money living in Winnipeg than Vancouver or New York City; or less in a rural area if you grow your own food. Discuss the interaction of all of these on each other – i.e. if you are poor and are ill, might it be harder to get medication to get better? If you are poor, might you live in an area that has more pollution (or a hog factory – related to the timely idea of putting the hog factory in Tuxedo versus Transcona - NIMBY).</p> <div style="text-align: center; margin: 20px 0;">  </div> <p>2. List some points that fit under each category – from students ideas – Here are the priority areas as designated by the United Nations (no need to mention them all):</p>	

Socio-Cultural	Environmental	Economic
Human rights Peace and human security Justice Gender equality Cultural diversity and intercultural understanding Community and culture Health HIV/AIDS Governance Demographics Equity and rights	Natural resources: <ul style="list-style-type: none"> <li>• water</li> <li>• energy</li> <li>• agriculture</li> <li>• biodiversity</li> <li>• and habitat</li> <li>• conservation</li> <li>• fish</li> <li>• forests</li> <li>• air</li> </ul> Climate change Rural transformation Sustainable urbanization Disaster prevention and mitigation	Poverty reduction Corporate responsibility and accountability Market economy Energy efficiency and conservation Consumption and waste management Economic performance Agricultural viability Mining Employment Education

Explain that this is called Sustainable Development or SD. Now how do we as citizens make better choices in a sustainable manner? We can use the 4 Systems Conditions created by The Natural Step. The Natural Step is a Non Governmental Organization (NGO) created by a children’s cancer doctor who saw a discrepancy between how people acted in regards to their environment and how they felt about their future.

3. What do you think we need to keep in mind when making choices? (Attempt to lead students into coming up with these 4 ideas)

**The Four System Conditions**

In the sustainable society, nature is not subject to systematically increasing:

1. concentrations of substances extracted from the Earth's crust, (stop taking things out of the earth such as oil, minerals, etc.),
2. concentrations of substances produced by society, (stop putting stuff that cannot break down in to the environment and into landfills/incinerators),
3. degradation by physical means (stop damaging the planet – over harvesting, losing topsoil, damaging ecosystems, etc), and
4. people are not subject to conditions that systematically undermine their capacity to meet their needs (make sure all humans have access to basic needs such as food, water, shelter, etc).

When we make decisions, we should keep the framework in mind and will need to do that in future lessons...Students should write these system conditions in their notebook in their own words for future reference.

**Extension Learning Activities**

Students can look up TNS at [www.thenaturalstep.ca](http://www.thenaturalstep.ca) for more information