COMPASS IN THE CLASSROOM

Tools and methods for inculcating a sustainable ‘habit of mind’ within existing school curriculum
The Sustainability Compass
A useful metaphor and thinking framework

A tool for assessing our present situation and setting direction towards living and learning more sustainably.

Includes Four fundamental aspects of a life in the 21st century.

It helps students and schools look at any issue, including themselves and their community, from different viewpoints in order to learn, make decisions and take action in sustainable ways where they live.

A tool to integrate sustainability into all areas of school life.
Definitions of the four Compass Points

Nature
- Environmentally healthy and responsible
  - Economically responsible & viable

Society
- Socially responsible & cohesive
  - Healthy & happy

Wellbeing
- Healthy & happy
  - Economically responsible & viable

Economy
- Economically responsible & viable
  - Socially responsible & cohesive
Compass Exercise Task 1

Instructions

• Each person will be given a colored triangle with one letter of the Compass (N, S, E, W).

• Mingle and form a group with those who have the same colour as yours.... and find a table to sit down at as a group.

• With the other people at your table, brainstorm a list of key words that might define your Compass Point. i.e. ...what does this compass quadrant mean to you?

• Each person write down these aspects on the triangle and keep with you.
The Compass of Sustainability uses the four directions of the Compass (N, E, S, W) to reflect four fully interdependent dimensions of life:

- **(N = Nature)** - The natural systems on which all life depends; healthy air, water, land; sustainable resource use; sufficient habitat; preservation of scenic beauty;

- **(E = Economy)** The economic systems that provide humanity with goods, services, and meaningful work; includes revenue, jobs and wages, budgets, taxes, markets, etc;

- **(S = Society)** The social and cultural systems that provide cohesion, identity, security and freedom; cultural traditions; legal frameworks

- **(W = Wellbeing)** - The health, happiness, and quality of life for individual people and their families
Compass Exercise Task 2

Instructions

1. Now, get up and form a Compass group of 6 people, one-two for each compass point with a different colour.

2. Come up with around 5 questions/group (each Compass Perspective) that you want to know about the picture, based on your Compass Point perspective.

3. Write down your questions directly on the paper template.
Compass Exercise Task 3

Instructions

• Next, write down who is involved in some way in the picture from your Compass Perspective.... i.e. meaning which social groups, organisation and/or individuals could have some relationship with this photo.

• Who might benefit, suffer, or be affected

• Write the names around the outside rim of your Compass paper template.
Compass Exercise Task 4

Instructions

• Identify as many issues / sub issues from your Compass Point perspective that are directly or indirectly related to what you see in the picture and the questions that you asked.

• Write these issues on the coloured Sticky Notes and place them in your Compass Quadrant

Nature = Green / Society = Yellow

Economy = Blue / Wellbeing = pink

• One issue per Sticky note
Compass Exercise Task 5

Instructions

• Each Compass Group take at least one issue from each Compass Point perspective and find the pattern/relationship between the four issues together with the central photo.

• Quickly put together a systems story and present to the entire group.
Challenges are interconnected.

Linkages are invisible.

Students need new skills and values to make informed decisions.

Think holistically, critically and reflectively…
A frame of thinking that creates a ‘habit of mind’ of thinking and acting sustainably

- Adds depth
- Deepens understanding
- Makes it relevant
- Makes it meaningful
- Motivates further inquiry
Understanding By Design
(or Backwards Design)
What is Understanding?

Understanding is the ability to transfer learning to new, different and unique experiences.

Photo: Belanger, University of British Columbia
Six Facets of Understanding

- Explain
- Interpret
- Apply
- Perspective.
- Empathize
- Self-Knowledge
Establishing Learning Priorities

- Worth being familiar with
- Essential and important to know and do
- “Enduring” understanding

Knowledge that is worth being familiar with
Knowledge and skills that are important to know and do (e.g. specific to a particular lesson or project)
Understandings that are enduring (i.e. lasting throughout one’s life)
Education is essentially about “Understanding”

- **Enduring Understandings**: What specific insights about Environmental Issues, sustainability & sustainable development, etc. do we want students to understand and assimilate into their own lives – values, beliefs, thought processes and behaviours?

- **Essential Questions**: What essential questions will frame the teaching and learning, pointing toward key issues and ideas, and suggest meaningful and provocative inquiry into content?

- **Competencies**: What should students know and be able to do?

- What Curriculum content standards address these types of understandings and competencies?
Three Steps of Backwards Design

1. Identify desired results

Today we will do this!
Identify desired results

Key: Focus on Big idea

- **Enduring Understandings:** What specific insights about big ideas do we want students to leave with?

- What **essential questions** will frame the teaching and learning, pointing toward key issues and ideas, and suggest meaningful and provocative inquiry into content?

- What should students **know and be able to do**?

- What **content standards** should be addressed by the lesson/ activity.
What are Essential Questions?

- **Essential questions** help learners see patterns, and fit pieces of the puzzle together.

- These types of questions should also provoke curiosity and motivate students moving them forward into the heart of a topic or subject.

- Essential questions are usually ones that don't have right or wrong answers.
Each Table will be an interdisciplinary topic from the list…

- Biodiversity
- Conflict
- Rice
- Love
- Consumption
- Human rights
- Community
- Water
- Climate Change
- Family
- Energy

www.themegallery.com
1. Form 4 mixed groups (mixing PYP & MYP for a good diversity . . . . taking into account department, year level, specialisation)

2. Each person in the group should select one subject that they will be representing (e.g. maths, science, chemistry, biology, Health, English, etc.)

3. Each group agree on the topic that they will work on.

4. Next identify as many issues / sub-issues, etc. that relate or link in some way your topic from each of the four Compass Points.
5. As an entire team, come up with one “Central Idea / Significant Concept” that takes into account all four Compass Perspectives

6. Write the “Central Idea / Significant Concept in the Centre of your Compass Template
7. Next, each subject representative should try to come up with 3-5 “Essential Questions” that both contribute to the “Essential Idea/ Significant Concept” and also link to your curriculum / syllabus.

8. Write each of your “Essential Questions” on a small sticky note (one question per paper), and write down your year level and subject on each question note.

Note: Do not stick them on the Compass Template yet.
9. Now, work together to place all of your essential questions in the Compass Quadrant that each one best relates to.
Task:

• Take all of your Essential questions and transfer them to a clean flip chart paper.

• Then work together to build a ‘relationship map’ showing the linkages between the different questions... i.e. finds where two or more questions relate to each other in some way (cause & effect, flows of information, energy, materials, etc.) and draw lines showing these linkages.
Systems Diagraming our Essential Questions

SECONDARY LEVEL
DEFORESTATION

- What value is in the prevention of people in the effects of deforestation?

- How does deforestation affect local geography?

- How does deforestation affect the environment?

- How do deforestation affect what are your family and country?

- What is the role of people and the government in deforestation?

- What are the effects of deforestation?

- How can we mitigate the effects of deforestation?

- What are the effects of deforestation on human health?

- How can we combat the effects of deforestation?

- What are the effects of deforestation on climate change?

AtKisson Group

Compass Education
Do I have to revolutionize my whole lesson then?

Compass and its compatibility
• **Unit of Inquiry** – how we share the planet, how we organize ourselves, who we are, how the world works

• **PYP Concept** - perspective, causation, form, function, change, connection, responsibility, reflection,

• guiding students’ **decision making**

• framing **thinking**

• guiding a specific **lesson** or a phase of the **inquiry cycle**
**Central idea:** We can change our environment by the choices we make about garbage.

**Concepts:** causation, responsibility

### SUCCESS from 2009-2010

The compass was used to guide students’ thinking about various pictures related to garbage. It helped them gain different perspectives they may not otherwise have had on an issue.

1. Towards the beginning of the unit, students were shown a clip from a video about Smokey Mountain in the Philippines. This provided background.
2. Various photos (a child from Smokey Mountain collecting trash, piles of mountain from Smokey Mountain, industrial pollution coming out of smoke stacks, polluted rivers) were placed in the center of a compass drawn on big poster paper. The teachers first provided an example on a flipchart with a photo in the middle of the compass. Then the class had a discussion about what they saw through each of the compass points. The compasses were spread out on several tables. Students were in a small group at that table. They focused on one compass point at a time. Students also made kinesthetic reminders of each compass point.
   a. This activity helped the students think about the photo from different perspectives.

3. Compass points were worded in grade 1 friendly language:
   a. Nature – where things live
   b. Economy – jobs, money, buying things
   c. Society – people living and working together
   d. Well Being – how we feel

### PLAN for 2010-2011

**How can the Compass help strengthen this Unit?**

- planning the unit
- teaching a specific PYP concept
- guiding students’ decision making
- framing thinking
- guiding a specific lesson or a phase of the inquiry cycle

The Compass will be used similarly. Students should get exposure to photo discussions earlier in the Unit/year so that they are more familiar with discussing photos.

### Resources

1. The flipchart use to introduce activity 2 above can be found on the server Grade 1 Share -> Unit of Inquiry -> Garbage.
2. The Compasses created by grade 1 students this year are in the UOI box.
COMPASS AND MYP

- **AOIs** – Human Ingenuity, Environments, Community Service, Health & Social Education
- **Significant Concepts**
- **Personal Projects**
COMPASS AND DP

- Extended essay
- Theory of Knowledge (TOK)
- Creativity, Action, Service (CAS)
Biology and Environmental Systems and Societies

- Deeper analysis and thorough evaluation of data
- Logical essay that meets the requirements of IB internal assessment
- Interconnected issues identified in students’ work
Reflection

Instructions

- Form small groups of your team... Humanity teachers, Year 4 teachers, year 5 teachers, etc.
- Talk together with your partners, and using the worksheet as a guide, identify as many ways as possible to use the Compass in your teaching both inside and outside the classroom.
Discussion and Conclusion
THANK YOU FOR YOUR ATTENTION!

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