

GRADE 5 SOCIAL STUDIES: PYP UNIT OF INQUIRY HOW WE ORGANIZE OURSELVES – ECONOMIC SYSTEMS



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LEARNING PLAN OVERVIEW

Subject(s)	<ul style="list-style-type: none">• Social Sciences• Humanities• Environmental Education• Global Citizenship Education• Sustainable Development Project
Grade Level (s)	Upper Primary (ages 8-11)
Systems Tool(s)	<ul style="list-style-type: none">• Sustainability Compass• Systems Iceberg• Systems Mapping or Causal Loop Diagrams• Triangles Game
Purpose of Using Tool	<ul style="list-style-type: none">• Inquiry• Critical Thinking• Discussion• Assessment
Summary	Grade 5 students will understand the differences between economic systems, how the economic terms in our unit connect, and the mental models that are associated with the economic systems and terms by using four Systems Tools over 4 lessons.

Learning Objectives

- Understand the differences between economic systems
- Create connections among economic terms in our unit
- Discuss what impacts distribution for supply and mental models that are
- Associated with demand

Material and Settings

Lesson 1: Articles about basic economics introduction. Permanent Markers, Flipchart paper, coloured triangles for Sustainability Compass categories. Duckster article to open:

<https://www.ducksters.com/money/economics.php>

Lesson 2: Economic vocabulary terms on large A5 size post-its or big index cards, large open space.

Lesson 3: Article about toilet paper supply and demand from Kerry McDonald (2020)

<https://fee.org/articles/when-kids-ask-why-is-there-no-toilet-paper/amp>, large whiteboards and whiteboard markers (each group gets one large whiteboard), laptop, and Loopy website for causal loops.

Lesson 4: Article about toilet paper large A3 size iceberg mental model (one for each group) Britannica kids, BrainPop. Epic! E-books, Newsela articles, Kiddle search engine, books checked out to the classroom about economics and resources, outdoor learning teacher, forest in the area (where we will go to find and discuss resources), other teachers who are Compass level 1 certified to guide me or answer questions. They also often come to our class and lead activities.

Learning Context

Students are Grade 5 (9-11 years old) students at an international school in Germany with instructional language in English. Students come from many different parts of the world: Australia, China, S. Korea, Germany, Belgium, Netherlands, USA, Brazil, and Argentina. A few students are learning for the first time in an English-speaking school. We have students that studied economics from a personal standpoint last year, so they already have some background knowledge of some economic system terms. The students are familiar with using the Compass Education tools such as the Sustainability Compass tool and the Iceberg Mental Model as they have done this earlier in the year with another teacher (who is Compass Level 1 certified already). The economics unit is a PYP unit of inquiry, How We Organize Ourselves.

Purpose of Using the Systems Thinking Tools

I chose several models because I wanted to have a variety of learning engagements, not just the Sustainability Compass tool. The Sustainability Compass tool would be a great way to introduce the unit and give students something to think about regarding how economics impacts more than one area of our lives. The Triangle Game would be a way for the students to interact with their economics terms they are using, rather than just defining, they can begin to see how the terms and concepts affect other things. I chose the Causal Loop as a challenging way for students to really dig into a specific situation of supply and demand during the pandemic, a time they have experienced themselves. Giving them an article and using their own experience of the toilet paper supply and demand allowed them to build their own models of the causal loops. Finally, I wanted them to begin to think from different perspectives and how our beliefs and systems in place currently have affected the supply and demand of toilet paper during the pandemic.

Learning Plan Step-by-step Description

LESSON 1: Sustainability Compass Tool for Economics

1. As a class, read the article from Ducksters: <https://www.ducksters.com/money/economics.php> on a projected board or printouts for students.
2. Draw a Sustainability Compass Tool on the board and use ideas and inspiration from the article to fill in what things might go in the different sections. We will fill in the Sustainability Compass as a group. Students draw and fill in their Sustainability Compass on their notebooks for Unit of Inquiry.
3. Hand out flipchart paper and markers to four separate groups (groups of 3-4 students). Each group has one focus of the Sustainability Compass: Nature, Economics, Society, and Well-being. They will use the Sustainability Compass we made as a group and fill in more things they think of that can be written in their assigned section.

LESSON 2: Triangle Game with Economic Terms (Two Days)

1. Students receive one large, A5-size post-it with an economic term on it. They find the definition of their terms using the resources above or dictionary and write it in their UoI notebooks. Some economic system terms can be found here.
2. After everyone has their definitions written, they go and find two people's terms they could connect their own terms with. The students discuss together why they chose the other person.
3. Finally when the activity is over, students write in their e-journals for the Unit of Inquiry: How We Organize Ourselves why they made those connections from their term to the other terms other students were holding.
4. On the next day of the Unit of Inquiry lesson, the class goes outside with their terms they looked up.
5. Explain that they need to hold the terms up so people can see what they are. Each student will secretly choose two other economic terms to create an equilateral (all sides equal) triangle. When one person in your triangle moves, then you have to move to try to keep the triangle equilateral.
****As a post-lesson reflection, I would have the class play this game first in a simpler way – without any economic terms****

LESSON 3: Causal Loops

1. Provide an article and read as a whole class about the toilet paper shortage during COVID-19: <https://fee.org/articles/when-kids-ask-why-is-there-no-toilet-paper/amp> (McDonald, 2020).
2. Show students a model of the Causal Loops (I showed one I made about sleep deprivation and coffee) and discuss how to use the nodes, arrows, and plus/minus symbols.
3. Explain they will do the Causal Loops with the information they just learned about through the article and use their own background knowledge.
4. Create random groups and each group has access to whiteboards, whiteboard markers of various colours, whiteboard erasers, their own laptops, and a printed copy of the article. Students can also use Loopy <https://ncase.me/loopy/> if they already know how to use that or want to experiment using it.
5. Discussion is a necessity, and students should be encouraged to make easy use of the whiteboards/Loopy website to add or erase or change as often as they want.

LESSON 4: Iceberg Model

1. Using the same article from the Causal Loops lesson, explain to students how they will use their Iceberg Models just like they used them with another teacher earlier this year.
2. Provide an example in each category.
3. Hand out A3 big Iceberg Model papers, and remind students they will use their articles to help them.
4. ****As a post-lesson reflection, I would have scheduled another session with this tool to dig deeper so we could begin to look for leverage points.****

REFLECTION

Plusses

The set of tools we used throughout the unit greatly enhanced the impact on student learning. The Sustainability Compass tool was a familiar tool they have used in specialist classes, so most of them were able to jump right into using them effectively. They had a lot of great interactive small group and whole class discussions about where things should fall on the N.E.W.S. and what things were linked to other things.

The iceberg model was something introduced to them by a guest teacher in our year-long Unit of Inquiry - so they used what they knew about the toilet paper dilemma and were able to come up with some mindset understandings. We could have used another session with this tool to dig in deeper because ideally, this is the place where you are likely to find solutions for systemic problems. The Causal Loops activity was some of the deepest thinking I have ever seen from the students about systems thinking and making connections. Keeping in mind this was the last week of school before winter break and the kids were really into it. They chose to use Loopy (<https://ncase.me/loopy/>) because they used it last year in their class.

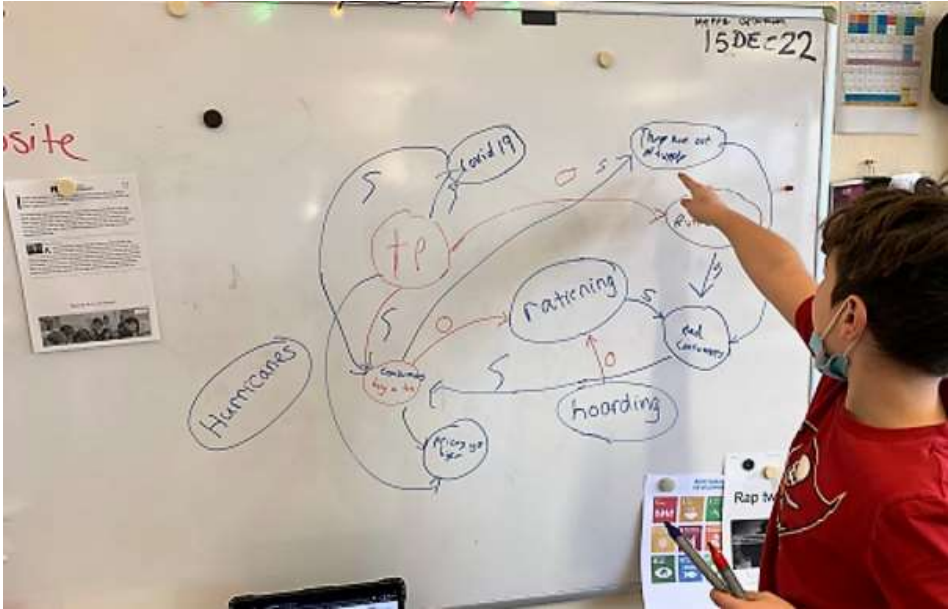
This tool was amazing and enhanced their creative visualization for connecting nodes/factors. It even allowed them to label with + and - signs and directional arrows. Even though I personally find the Causal Loop tool really challenging, I think this tool really opened up their brains and provided a way for them to display their thinking, while it was evolving.

Areas for Improvement

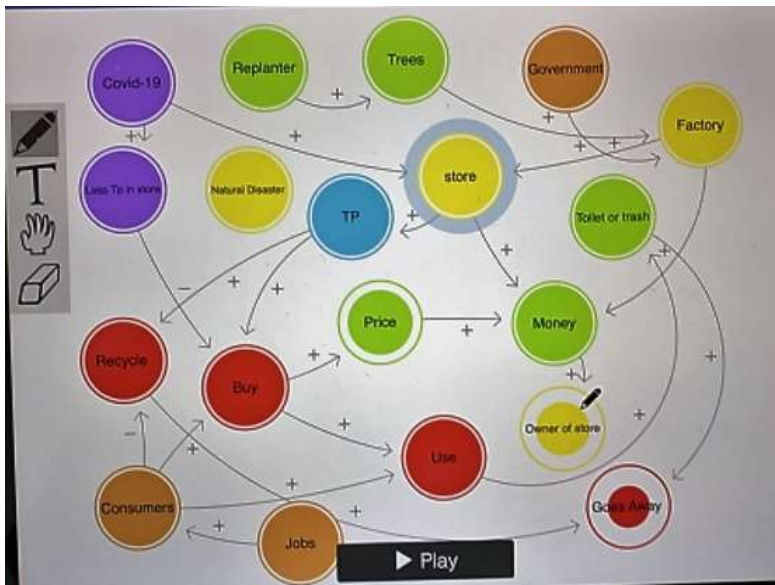
The triangles game was wildly fun, but we could have used more time, and as Mark Mains suggested, it would have been better to do this without economic terms thrown into the mix from the beginning. I do believe this is a great tool with more use than just fun, but we would need to better understand the general rules before applying them to use in a specific system. So I would play this game more often just for fun, before trying to use it in the unit if I had to do it over again.

EVIDENCE

[Video of Compass tools in action by Caprice Schupp](#)



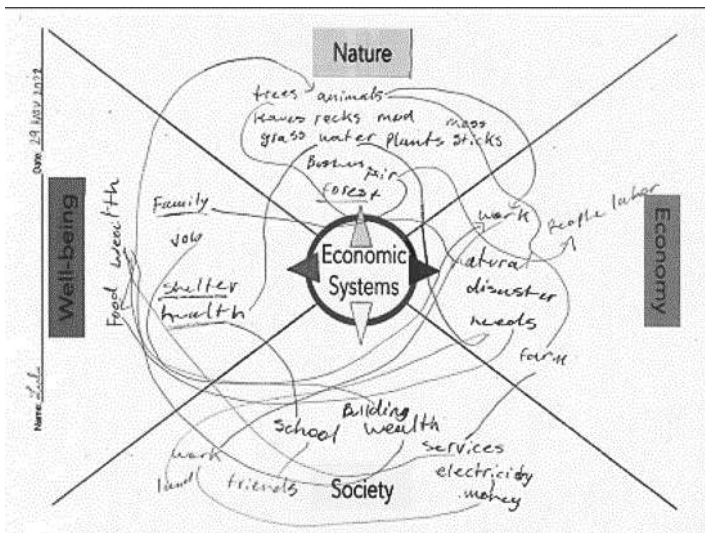
Group member explains his group's thinking (see [video](#) to see some explanation)



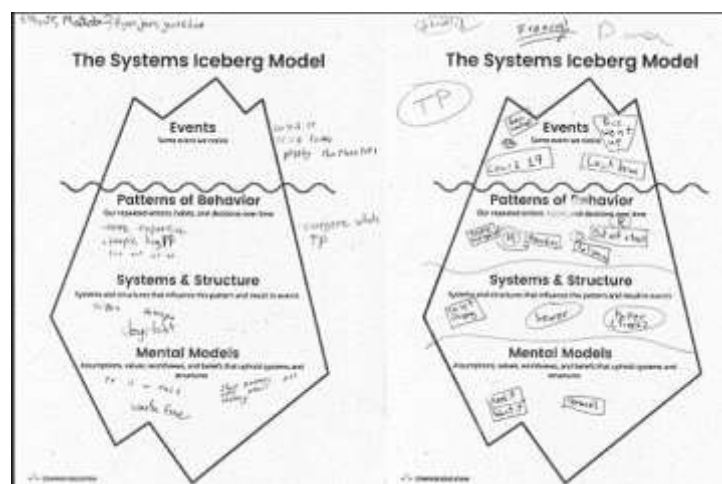
Students create Causal Loops using Loopy website (see [video](#) for tool in action)



Students work on Causal Loops using a whiteboard table



Individual, group and class created Compass tools for Economics Unit of Inquiry: How We Organize Ourselves



Student group created Iceberg Models



Triangle Games in action (see [video](#))