Lesson Plan for Implementing NETS•S—Template I
(More Directed Learning Activities)

Template with guiding questions

Teacher(s)
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Position Teacher

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Grade Level(s) K-5
Content Area Social Studies

Time line Nine weeks (1 grading period; six 40-minute class sessions)

Standards (What do you want students to know and be able to do? What knowledge, skills, and strategies do you expect students to gain? Are there connections to other curriculum areas and subject area benchmarks?)

Students should be able to demonstrate that they can:
1. Describe the different types of productive resources and provide examples of each.
2. Describe the economic term scarcity.
3. Provide real-world examples of scarcity of natural resources.
4. Describe the ways scarcity of clean, fresh water impacts the people of New Delhi, India and surrounding areas.
5. Describe the economic reasons for the pollution problem in India.
6. Identify the prime meridian and equator on a world map.
7. Name both world hemispheres which can describe India's location.
8. Recognize that North and South America represent most of the Western Hemisphere.
9. Name the approximate latitude and longitude of Brumby Elementary School
10. Name the appropriate latitude and longitude of New Delhi, India
11. Describe the similarity of the distance from the point of origin in the latitude/longitude grid for Brumby and New Delhi, India

Content Standards:

- Social Studies Georgia Standards of Excellence for Third Grade:
  - SS3E1 Define and give examples of the four types of productive resources. a. Natural (land) b. Human (labor) c. Capital (capital goods) d. Entrepreneurship (risk-taking and combining natural, human, and capital resources in an attempt to make a profit)
  - Map and Globe Skills
    - use a map to explain impact of geography on historical and current events
    - draw conclusions and make generalizations based on information from maps
    - use latitude and longitude to determine location
  - Connecting Themes/Enduring Understandings Used in 3rd Grade Social Studies
- Human Environmental Interaction: The student will understand that humans, their society, and the environment affect each other.
- Location: The student will understand that location affects a society’s economy, culture, and development.
- Scarcity: The student will understand that scarcity of all resources forces parties to make choices and that these choices always incur a cost.

**ISTE Standards**

1. **Empowered Learner**
   - c. Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

2. **Digital Citizen**
   - b. Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.

3. **Knowledge Constructor**
   - c. Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
   - d. Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

4. **Creative Communicator**
   - b. Students create original works or responsibly repurpose or remix digital resources into new creations.
   - d. Students publish or present content that customizes the message and medium for their intended audiences.

5. **Global Collaborator**
   - a. Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.
   - b. Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
   - c. Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
   - d. Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.

**Overview** (a short summary of the lesson or unit including assignment or expected or possible products)

This lesson is part of a cross-curricular unit based on the *Water, Water, Everywhere* lesson in the EiE (Engineering is Elementary) curriculum ([https://www.eie.org/eie-curriculum/curriculum-units/water-water-everywhere-designing-water-filters](https://www.eie.org/eie-curriculum/curriculum-units/water-water-everywhere-designing-water-filters)). The Core Expansion (CoreX) team at Brumby has begun to implement EiE units in the specials rotation. The units in this curriculum start with a story about a child who tackles a real-world problem through engineering. *Water, Water, Everywhere* begins with the story *Saving Salila’s Turtle*, which explores the problem of water pollution in India. In the culminating activity, students build a water filter. The story, however, sets the stage for Brumby’s CoreX team to integrate literacy, math, art, health, and social studies with our engineering and science lessons. This lesson focuses on the social studies topics standards which relate to the story and the real-world problem it addresses. Third-grade students will explore the geography and economic standards related to water pollution in India and will create Google Tours which explain India’s local location and Sway presentations which briefly explain the four productive resources and highlight issues surrounding the scarcity of some natural resources in India.

**Essential Questions** (What essential question or learning are you addressing? What would students care or want to know about the topic? What are some questions to get students thinking about the topic or generate interest about the topic? Additionally, what questions can you ask students to help them focus on important aspects of the topic? (Guiding questions) What background or prior knowledge will you expect students to bring to this topic and build on?) Remember, essential questions are meant to guide the lesson by prompting inquiry. They should not be answered with a simple “yes” or “no” and should have many acceptable answers.
1. How does the availability of natural resources in a place impact the people who live there?
2. Why is clean water in India scarce?
3. How can I describe India’s location on a map of the world?

**Assessment** (What will students do or produce to illustrate their learning? What can students do to generate new knowledge? How will you assess how students are progressing (formative assessment)? How will you assess what they produce or do? How will you differentiate products?) You must attach copies of your assessment and/or rubrics. Include these in your presentation as well.

Students will create a Sway presentation explaining the four types of productive resources and provide examples of each. Students will generate new knowledge by finding examples that extend beyond those highlighted in the content materials and by creating a presentation with a digital tool which is relatively new to them. Students will create a Google Tour with Google Tour Builder to New Delhi, India. Students will generate new knowledge by examining the exact location of their school using Google Earth and using a new digital tool (Google Tour Builder) to create a product. Rubrics will be used to measure student progress on the Sway and Google Tour assignments. Students will also use participate in the PenPal Schools Online Project, “Joining Forces for the Environment.” Students will share ideas with students across the world about the impact of pollution in their countries.

**Resources** (How does technology support student learning? What digital tools, and resources—online student tools, research sites, student handouts, tools, tutorials, templates, assessment rubrics, etc—help elucidate or explain the content or allow students to interact with the content? What previous technology skills should students have to complete this project?)

Technology supports students by empowering students to

Digital tools: Six laptop computers, CoreX iPad cart with 30 iPads, Recordex Simplicity Touch display panel

Digital resources: Microsoft OneNote Water, Water, Everywhere content page, Sway, Google Earth, Google Tour Builder, PenPal Schools

Content Resources available on OneNote: Productive Resources PowerPoint, Video clip, India: Pollution in New Delhi from Discovery Education

Other Resources: World Maps, Sway and Google Tour rubrics, Student surveys

Previous skills needed: Students should be able to access their Office 365 accounts and how to access the Sway and OneNote apps. They should be able to find the content area in OneNote and should know how to use labeled tabs to find the appropriate content section. They should be able to write in complete, age-appropriate sentences to participate in PenPal Schools discussions.

**Instructional Plan**

**Preparation** (What student needs, interests, and prior learning provide a foundation for this lesson? How can you find out if students have this foundation? What difficulties might students have?)
Students need a foundation in geography including being able to identify the seven continents on a map or globe and understanding cardinal and intermediate directions. They must also be familiar with the economic concepts of scarcity, needs, and wants. They should also have some experience with Microsoft Sway and Google Earth.

Brumby has a culturally diverse student population, including many students from India. Their background knowledge, including stories from their parents, often sparks discussions with other students whose families’ home country also experienced a scarcity of clean water.

Since I have been teaching social studies in our CoreX rotation for seven years, this is my fourth year with students who have attended Brumby since kindergarten. I have taught most of the other students in some previous grades. As a result, I know the geography and economic concepts students should know. However, due to the transiency at Brumby, it is likely that many students will have gaps in understanding. Students received instruction on latitude and longitude earlier in the school year, but this concept is often difficult for students. I will question students to get an idea of gaps in understanding, and I have included a review of these concepts in the lesson content materials.

Management Describe the classroom management strategies you will use to manage your students and the use of digital tools and resources. How and where will your students work? (Small groups, whole group, individuals, classroom, lab, etc.) What strategies will you use to achieve equitable access to the Internet while completing this lesson? Describe what technical issues might arise during the Internet lesson and explain how you will resolve or troubleshoot them? Please note: Trouble-shooting should occur prior to implementing the lesson as well as throughout the process. Be sure to indicate how you prepared for problems and work through the issues that occurred as you implemented and even after the lesson was completed.
I will conduct a whole group mini-lesson to introduce project, and to explain the different components. Students will complete all other parts of the project collaboratively in my classroom. Each group will have 3-4 students, depending on class size. Students need to use a computer to create their Sway projects on productive resources, and the six laptop computers in my room will accommodate all the groups. I considered allowing students to choose their own groups but have decided to create the groups myself to provide differentiation. Students who struggle in reading or writing can be paired with more capable students, and as I monitor groups’ progress, I can ensure that they are still contributing to the project and have equal access to the computer. I will monitor each group closely to prevent dominant students in the group from monopolizing the computer or the project. To make learning more student centered, I posted my content material to the content page on a Class Notebook. Students can use iPads from the team iPad cart to access content materials and review them at their own pace, making their learning more student-centered. In this way, students who are not actively adding to the Sway project at any point, can still participate in other learning activities. The cart has 30 iPads which is more than enough for any of our third-grade classes, even if some of the iPads are out of service.

In the second phase of the project, students will focus on the scarcity of the clean water in India and explore India’s location on the map. As they did in the productive resource section of the project, students will explore the content materials through the content area of their OneNote social studies notebook. Again this allows learning to be student-centered and at the student’s pace rather than being teacher-directed. The product for this section is a collaboratively-created Google Tour from Brumby to New Delhi, India. Students can find a model Google Tour to New Delhi, India in OneNote, but due to the time constraints of the CoreX schedule, I will go through the model tour during a whole group mini-lesson and explain the steps students will follow. Collaborative groups will create the tours, but all group members can access Google Earth from iPads. In this way, all students can have internet access throughout class.

During the PenPal Schools section of the project, students will rotate between brainstorming with their collaborative group on how they will showcase what they learned and taking a session at a classroom laptop to comment on the their opinions about the most pressing environmental concerns in their community. Collaborative groups can use the iPads to explore PenPal Schools’ Creative Toolkit as they decide how to showcase their learning.

One of the biggest technical problems I faced was the time lag between adjusting the Class Notebook and having it sync with students’ OneNote notebook. This caused some lapses in productivity, and I will know to avoid adjusting while students are actively working.

**Instructional Strategies and Learning Activities** – Describe the research-based instructional strategies you will use with this lesson. How will your learning environment support these activities? What is your role? What are the students’ roles in the lesson? How can you ensure higher order thinking at the analysis, evaluation, or creativity levels of Bloom’s Taxonomy? How can the technology support your teaching? What authentic, relevant, and meaningful learning activities and tasks will your students complete? How will they build knowledge and skills? How will students use digital tools and resources to communicate and collaborate with each other and others? How will you facilitate the collaboration?
In this lesson, students will be collaborating, using new digital tools to create products, and communicating beyond the classroom. The Google Tour students will create is challenging, and sharing comments through PenPal Schools is an authentic task which pertains to the real world. Student groups will contain students with different ability levels and with different background experiences. My role as the teacher is to facilitate students’ learning by monitoring, but not controlling, project work. The students’ will work as explorers of new ideas and producers of new products. These learning strategies are all indicators of engaged learning (Edel-Malizia & Brautigam, 2015).

Microsoft OneNote technology supports the teaching by allowing students to access lesson content at their own pace and as often as necessary. The technology makes learning experiences more student-centered. OneNote allows students in the classroom to collaborate with one another, and PenPal Schools allows students to communicate and collaborate beyond the classroom and across the world. As students begin preparing their showcase projects in PenPal Schools, they

**Differentiation** (How will you differentiate content and process to accommodate various learning styles and abilities? How will you help students learn independently and with others? How will you provide extensions and opportunities for enrichment? What assistive technologies will you need to provide?)

Differentiation makes content accessible to students with wide-ranging needs. One way I provide differentiation in this project is by creating student groups that contain students with different ability levels and different background experiences. Students in the early stages of speaking English will be in groups with more English-proficient students with the same native language. Another way to differentiate is by providing content materials alternatives that struggling readers can access. Students can choose to have Quizlet flashcards read aloud while they review content area vocabulary, and they can use the “speak” option in the PowerPoint presentation on productive resources to convert text to speech. Students will need to learn how to use this feature, and they should work on a laptop computer rather than an iPad. To provide a simpler option for students I also recorded audio for each slide, and a student only needs to use the speaker icon to hear my voice reading the text. This feature allows struggling readers to access content more independently.

To provide differentiation for struggling or reluctant writers when they can collaborate with students beyond the classroom, I had them dictate their response with the dictate option in Word Online in the Office 365 platform. They could then print their response and use this to help them add their response in the PenPal Schools comment area.

**Reflection** (Will there be a closing event? Will students be asked to reflect upon their work? Will students be asked to provide feedback on the assignment itself? What will be your process for answering the following questions?)

- Did students find the lesson meaningful and worth completing?
- In what ways was this lesson effective?
- What went well and why?
- What did not go well and why?
- How would you teach this lesson differently?)

The closing event for this project will be a class meeting where students have the opportunity to share experiences, perception and opinions about the lesson. Since some students may be hesitant or uncomfortable sharing their experiences verbally, students will also complete a survey where they can address their thoughts about the project. I will make annotations in my daily lesson plans to highlight successes with the project and areas that need adjustment. I will also write a reflection on the process at the end of the lesson, after I evaluated student work and considered student input.
Closure: Anything else you would like to reflect upon regarding lessons learned and/or your experience with implementing this lesson. What advice would you give others if they were to implement the lesson? Please provide a quality reflection on your experience with this lesson and its implementation.

Students seemed to enjoy accessing the lesson content through their OneNote social studies notebook. I have made a concentrated effort to making my classroom more student-centered and giving up some of the control I had come to guard fiercely after 23 years in the classroom. One thing that stands out to me is that I tried to include too many elements in this lesson, and none of the projects are completed at this point. As a teacher in the special rotation, our time with students is limited to no more than six class sessions each grading period, and testing, field trips, and other end-of-year activities often impact available instructional time.

References

# Productive Resources Sway Presentation

Homeroom Teacher: ____________________________

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<th>Score</th>
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<td>More than one productive resource is missing</td>
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<td>has a card</td>
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<td>Accuracy</td>
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<td>mostly missing or mostly incorrect.</td>
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<td></td>
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<td>Two or more resources are missing accurate</td>
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<td>accurate examples</td>
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<td>Images</td>
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<td>Some examples are missing images, or some</td>
<td>Two or more examples are missing images, or</td>
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<td></td>
<td>image that helps</td>
<td>of the images are unrelated to the example.</td>
<td>most of the images are unrelated to the</td>
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**TOTAL POINTS**

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Group Members:

_____________________________________

_____________________________________

_____________________________________
Google Tour Builder

Assessment Rubric

Homeroom Teacher: ________________

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<th>2</th>
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<th>Your Points</th>
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<td>All locations are accurately place marked.</td>
<td>Some locations are missing or incorrectly placed.</td>
<td>Placemarks are missing.</td>
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<tr>
<td>Images and pictures</td>
<td>The tour contains images that relate to the locations.</td>
<td>The tour contains images, but they are not relevant to the location.</td>
<td>The tour does not include images.</td>
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<td>Interactive Tour</td>
<td>The tour is accurate, detailed, and in a logical order.</td>
<td>The tour is missing some locations or information</td>
<td>The tour is mostly incomplete.</td>
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<td>Group Work</td>
<td>The group worked very well together. All members of the group contributed evenly.</td>
<td>The group worked well together most of the time. The group was able to resolve problems with help from the teacher.</td>
<td>The group did not work well together. Some members did not contribute or were excluded from group activities.</td>
<td></td>
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<tr>
<td>TOTAL POINTS</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Group Members:

________________________________________________________________________

________________________________________________________________________
Water, Water, Everywhere - Student Reflection

Please answer the questions as completely and honestly as you can, so I can make plans for next year!

Hi Mary, when you submit this form, the owner will be able to see your name and email address.

1. Do you feel that this project helped you learn something that will be important in real life?
   - Yes
   - No
   - Maybe

2. Did you enjoy working on this project and feel like it was worth your time?
   - Yes
   - No

3. What was the best part of the project?
   Enter your answer

4. What made you enjoy that part of the project?
   Enter your answer

5. What part of the project did you enjoy the least?
   Enter your answer

6. Why didn't you like this part?
   Enter your answer
6. Why didn't you like this part?

Enter your answer

7. What changes would make this a better project?

Enter your answer

Submit