



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

Template with guiding questions

Teacher(s)

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Grade Level(s) 3

Content Area math

Time line 4 one hour class periods

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?)

Content Standards MCC.3.OA1, OA2, OA3, OA4, OA5, OA6, OA7

NETS*S Standards: 1a, 1b, 2a-d, 3b, 4a-d, 5a-d, 6a-d

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

My students will be completing a culminating task on our unit on multiplication and division. The students will be expected to create word problems which reflect their skills in multiplication and division. These skills include inverse operations, properties of multiplication, repeated addition, and equal groups. Students will be given three options to create their projects. These options are using a Webquest, creating a presentation in Google Docs or Powerpoint, or using Jing. Students will be paired up and may choose the way they would like to present their project.

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? What questions can you ask students to help them focus on important aspects of the topic? What background or prior knowledge will you expect students to bring to this topic and build on?)

What is multiplication? What is division? What strategies can be used to help solve multiplication and division equations? In order to get students thinking about the topic, I use real world examples. These examples include going to the grocery store, planning for a party, and playing games at home. We also make a list of things that come in 2's, 3's, and 4's etc so they can connect real items with multiplication. The continuous question I ask students is to reflect on how multiplication and division can be used in real-life. I want them to understand this is a skill set they will be using forever. As far as prior knowledge, students will need to know basic addition and subtraction facts. Students should also have knowledge of double facts and even and odd number patterns.

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?)

Since this is a culminating task, students will be expected to use Jing, Powerpoint or other presentation, or to create a project displaying their knowledge of multiplication and division. Throughout the project, I will use a checklist to ensure students are displaying the elements which are important. Students will also be given the same checklist before beginning the project. At the conclusion of the project, student will also self-assess and reflect what they have created. This reflection and rubric will be written in language they can easily understand. The final assessment for this project will be a rubric. Differentiation will be used based on the types of projects students will create. Students will be given the requirements, but it is up to them how they display the knowledge.

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?)

Students seems to learn and display what they have learned when they use technology. For this project I have chosen three options for my students. These options are Jing, creating a Webquest, or creating a Powerpoint or Google Docs presentation. My students have used all three of these items regularly in the classroom. For resources, students are able to use their math books and the online website that goes along with the program. Students will also be given a checklist which will have all of the required items. Before beginning the project, students will also be given a rubric which they will be graded by. All of these resources will be explained in depth so students understand what is expected of them. Students will also be given a list of vocabulary words to use in their project.

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?)

Since this is a culminating task, students will have in depth knowledge of strategies for multiplication and division. Students will also be familiar with vocabulary, word problem strategies, and properties. By students creating the project, this will allow me to assess their knowledge of vocabulary, word problems, properties, and strategies for solving multiplication and division equations. Therefore, the checklist provided to the students will help guide them to display all of these elements. To ensure students are familiar with vocabulary, I will include a list of just vocabulary words. The way students use these and identify them in their work will give me a clear understanding of what they understand.

With everything there will be difficulties. Some students may have trouble reading and pronouncing the vocabulary correctly. Also, they may have trouble with reading and understanding rubrics. I will closely monitor these students to ensure they are not getting behind or having difficulties. Another difficulty is managing several groups of students doing several different projects. Since the student chooses how they would like to display their information, it will be important to ensure all students completely understand what they are doing.

Management Describe the classroom management strategies will you 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?

Since I will have several different activities going on at once, I will use a couple of management strategies. The first strategy will be to place students working on Jing projects in one area of the room, students working on presentations in one area, and students working on Webquests in another area. This way while I am patrolling the room, it will be easy to ensure students are actively working. I will also give each pair of students a card that says HELP in large red letters. So, instead of students yelling or running around the room, the group can hold up the card and I can respond in an orderly manner. Lastly, controlling the noise is also important. To do this, I will also use color cards. If students begin to get too loud, I will display a yellow card. The students know they will need to begin to whisper. The green card which means the noise is good will be displayed unless it needs to be changed. When a red card is displayed, students know they need to immediately stop talking and turn their attention to me. At this point, we can regroup.

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?

During this activity, I will be the facilitator. It is important for my students to show me what they have learned. I will mostly monitor progress throughout the project. My students will take on three roles. They will be explorers, teachers, and producers. They have the freedom to take the knowledge they have learned throughout this unit and create anything they would like with it. Some will be teachers because they are helping their partner learn and apply concepts also. They are producers because they are making a product which will be useful to them and their peers. Students will be using all aspects of Bloom's Taxonomy. Students will use their knowledge to solve problems. While they are creating their own word problems, they will be applying the knowledge they have learned throughout this unit. Technology gives my students a more motivating option for displaying their knowledge. It gives them the chance to add pictures or other things which makes it their own personal work. They become more accountable. Students will be using technology to create a product which will be useful to them and others in the future. Students will be collaborating with their partners. Students will also be sharing their project with students in my other math classes. This will help them share ideas and possibly learn from each other.

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?)

In order to differentiate, I used some ability grouping when I paired my students up. For instance, I paired a student who may have had a hard time reading with a student who was a strong reader. I also required my EIP class to only make six slides instead of eight slides. The classes that completed the full project had the option of creating a bonus question of their choice. Most all of the groups completed this. At the end of the project, students had to write what they liked and did not like about the project. I made Premier Tools available for my students to use. This is an assistive technology program which helps students with reading, writing, and creating projects.

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?)

Students will be provided a rubric which they will be graded on. The rubric will be written in kid friendly verbiage so students understand what they are expected to accomplish. Additionally, students will be asked to self-assess themselves. This data will help me to determine things students enjoyed and things they did not. I will also complete a self-assessment as I am observing to determine what I can do differently next time. Overall, I feel the project went very well. The students found interest and motivation because they were using technology. Many of them created projects so good I will be able to use them as a teaching resource in the future. One thing that did go well was some of the partner groups. For this lesson, I paired students up, but maybe next time I will let them choose. Some of the students felt uncomfortable with their partners I feel like. Since I have these great examples, the next time I do the project, I will be able to some examples of what is expected instead of just communicating it.

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?

My advice to any teacher doing a lesson with many types of technology is to be familiar with what the students are using. When a teacher isn't familiar with the technology and something happens, students get frustrated and often do not want to continue working. So, it is important to be able to have basic troubleshooting skills and test the products before having students use them.

Link to wiki page: <http://itec7430fall2013.wikispaces.com/April+Shinpaugh>