Re-purposing Technology Lesson Plan Template
TE 831: Teaching School Subject Matter with Technology

Summary Box

Lesson title: End of the Year Math Presentations

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Subject area: Mathematics

Technology integrated: Glogster - edu.gloster.com

Length of lesson: Three 50 Minute Class Periods

Suggested grade level: Elementary

Lesson Abstract: In this lesson, students will be working with partners (that I have previously assigned) to "reteach" the class two topics we have covered in math throughout the year. Each pair of students will randomly select two topics from the bucket. After they have chosen their topics they will work together on their worksheet to help collect their ideas of the important concepts they want to focus on during their presentation. Once the groups have completed their worksheet, they will login to their Glogster accounts that I have already created for them. Glogster is a technology that allows students to create an online poster using graphics, text, images, video, and even audio. With this lesson, the students will create two posters to assist them in the "re-teaching" of their topic. They will be working together on this project over the course of three class periods where they will be able to save and edit their "digital poster" as often as they see fit.

I chose this technology for many reasons. One reason I chose Glogster was because it's a technology I was unfamiliar with before I took this course. Another reason I chose Glogster was because it is a "kid-friendly" resource. Some technologies are very difficult for younger students to understand. Glogster is user friendly and is a technology that doesn't take up much class time explaining how to use it. I have done this project in previous years but with limited classroom technologies, the students used our chalkboard or poster board to create their presentation. Overall, the students had great ideas but between the difficulties of reading a second graders handwriting on a poster board or the chalkboard, or having to spend time "setting up" by writing on the chalkboard, our audience was easily distracted and lost. Using Glogster to "spice up" our presentations, not only offers the opportunity to add outside resources to their presentations but it also helps establish the mindset for my students at a young age that technology can be incorporated into any subject matter.

Lesson Objectives:

- Students will be able to work together with their partners to reteach their given topics.
- Students will be able to create at least one image and two pieces of text on their Glog.
- Students will be able to give a 3 – 5 minute presentation on their topic using their Glogs and any other materials they see fit.

Student NETS Standards Alignment:

- Student NETS 1b – Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students create original works as a means of personal or group expression.
- Student NETS 2b – Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- Students NETS 3c – Students apply digital tools to gather, evaluate, and use information. Students evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- Students NETS 5a – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students advocate and practice safe, legal, and responsible use of information and technology.
- Students NETS 6d – Students demonstrate a sound understanding of technology concepts, systems, and operations. Students transfer current knowledge to learning of new technologies.

Materials:

- http://edu.glogster.com/
- List of Student Glogster Login's and their passwords
- 8 Different Topic Slips for students to randomly choose from (See Appendix A)
- Container to hold Topic Slips
- Worksheet for each individual topic (See Appendix B)
- What to put in your Glog Worksheet (See Appendix C)
- Computer Lab
- My Example Glog (See Appendix D)
- Any additional materials/worksheets each group decides they will need for their specific presentation

Detailed Lesson Procedure:

What needs to be completed prior to this lesson:

- Because this is an end of the year project – Our math curriculum should be completed (throughout the course of the year these are the main topics we have

discussed in our math textbooks, students should be very familiar with all 8 topics)

- Create Glogster Student accounts for each student so that each student can have a login and they can begin working on the Glogs without the interruption of having to create them on their own. I will have a Post-It of each student's login (or "nickname") and their password so they can keep it with their papers. I will also have an official printed list incase a student loses their Post-It.
- Discuss with the computer teacher several weeks in advance of when we can plan three class periods (hoping for consecutive days) to work on and present our Glogs to our classmates.
- Have topics pre-cut into strips and placed into the container so each group member can draw their topic – students already know their group partners (they have worked with them all semester).

Day One of the Lesson:

- We will begin class in the computer lab. Today students will not be logging in to the Glogster Account; they will be observing my presentation on my topic of Three Digit Subtraction with Regrouping using the Glog I created.
- I will pull up my Glog, http://mallorylynn22.edu.glogster.com/three-digit-subtraction/. Once the Glog is up on the projector, I will pass out the *What Goes in My Glog* Worksheet (Appendix C) so students can see the elements that need to go in their Glog using my example. We will read through the requirements of their Glog before I begin my presentation so students can be aware of all of the elements of the project. Also review the computer rules and using the Internet to search for images. (10 min.)
- I will start by introducing my Glog – Three Digit Subtraction and explaining that this is my topic and I can use my topic as the title for my Glog. I will then show the example of the three-digit subtraction problem and talk through each of the steps of what to do when subtracting with regrouping. I will explain to the students that I only used one example on my Glog because we are "reviewing" the topic and students should have already mastered how to correctly subtract three digit numbers with regrouping. (10 min.)
- I will then show the video that I made to go through the steps again using a different problem. I will remind the students that they do not have to create a video, I will be video taping their presentations and we will add the video to their Glog at the end of their presentation! (5 min.)
- After I have given my Glogster Presentation, I will allow for the opportunity for any students to ask questions about my presentation and what to include. I will explain that tomorrow I will show everyone how to include text, background and images to the Glog – so their questions shouldn't focus on the "how to" information. (10 min.)
- Once all questions are answered we will head back to the classroom and students will pick their topics (Appendix A) and begin working on the worksheet with their partners. They will have the rest of class time to complete their worksheet (Appendix B) for their topics, which will help organize their thoughts for their own Glog. (15 min.)

- When class time is over, students will collect all the work they did and turn it in to me to hold on to for the next day.

Day Two of the Lesson:

- We will meet in the Computer Lab for class today. The students will sit next to their partners. They will have with them at their seats all the information they worked on yesterday including the *What Goes in My Glog* Worksheet.
- I will give each student their Post-It with their Glogster Account login and will already have the computers set to the Glogster login page before class starts (to hopefully prevent any unwanted chaos of finding the website). Once they receive their login, each student will be directed to login to their account using the Post-It information. (3 min.)
- Because Glogster is very user-friendly (especially for younger students), I will give a brief tutorially on where to find everything – i.e. the magnet tool bar. (10 min.)
- The students will have the remaining class time to create their Glogs with their partners. I will remind the students that each partner will be on the computer for one of the topics – they will work together, but one partner will use the computer while the other helps give information and then vice versa. Therefore, each student has the opportunity to create a Glog. (35 min.)
- While students are working, I will walk around and help with any questions about the website or their specific project.
- At the 2-minute warning, students will save their unfinished/finished Glogs. Once they have saved their Glog and logged out they will line up at the door.

Day 3:

- Students will login to their Glogster account (http://edu.glogster.com) and continue working on any unfinished Glogs and save their finished Glog. (20 min.) – Because of the Glog requirements for this project students should be able to finish in the given time.
- Groups will spend the rest of class time presenting their Glogs to their classmates. Each group will be able to display their Glog to the rest of the class and talk about their topic. Once they have presented they will turn in their *What Goes in My Glog* Worksheet as well as any other information they have used for their presentation. (30 min.)

After the Lesson is completed:

- I will login to my account and upload the videos of their presentations and print out each Glog. Each student will be able to take home their Glog as well as their classmates' Glogs as "Review Book"!
- Students will have an opportunity to use the Glogs as a study guide to prepare for the End of the Year Math Assessment.
- I will also be sending each student's Glog in an email to their parent's so they can share all their hard work with their parents and so they have access to their Glog from home.

Appendix A:

End of the Year Math Project Topics:

1. Place Value - ones, tens, and hundreds and greater than, less than or equal

2. Fact Families and story problems - what is left/how many altogether

3. Two Digit Addition/Two Digit subtraction with regrouping

4. Three Digit subtraction with regrouping

5. Money - quarter, nickel, dime, penny

6. Time - time to the hour, half hour, quarter hour, minute

7. Plane shapes and moves - flips, turns, and slides

8. Solid Figures and volume, area, and perimeter

9. Multiplication and fractions

Appendix B:

Topic: _____

Using one-digit, two-digit, and three digit numbers provide examples of the ones place, tens place and hundreds place.

List examples here:

Topic: _____

What is a fact family? Provide examples of different fact families.

List examples here:

What does greater than, less than, and equal to mean. Talk about how the "mouth eats the bigger number". Provide examples using numbers up to 3-digits.

List examples here:

What are the main parts of a story problem – how does the question tell us whether to add or subtract? What do we do when we see – how many are left/how many altogether. Provide examples of story problems.

List examples here:

Topic: _____

What are the steps we go through when we are adding two-digit numbers with regrouping. Provide examples of addition problems with regrouping.

List examples here:

Topic: _____

What is the value of the four coins: quarter, dime, nickel, and penny. Please provide some characteristics about each of these coins that could help us identify them – like the quarter is the biggest coin.

List examples here:

What are the steps we go through when we are subtracting two-digit numbers with regrouping. Provide examples of subtraction problems with regrouping.

List examples here:

Provide some addition and subtraction problems with money and a story problem about money.

List examples here:

Topic:

Which hand on the clock stands for the hour and which for the minute? Talk about time to the half hour – when we say 1:30 where are the hour and minute hands? Provide some examples.

List examples here:

What do quarter after and quarter to mean – which one stands for 15 minutes after and 45 minutes after? Provide examples of clocks that show both times.

List examples here:

Topic:

What are the names of the plane shapes? Draw examples and label them. (circle, square, rectangle, triangle, trapezoid, parallelogram, and hexagon)

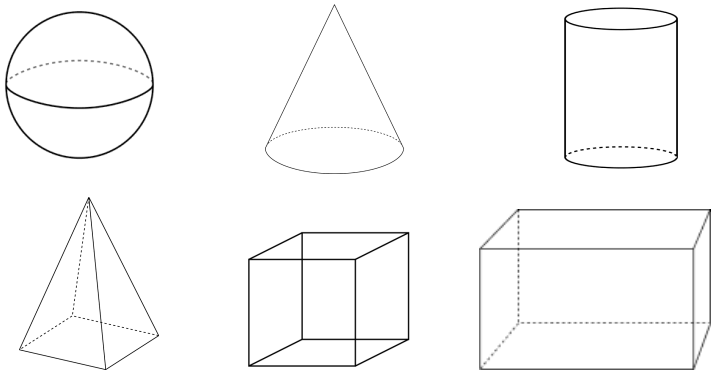
List examples here:

Provide an example of a flip, turn, and slide. How can we use the arrow directions to help us figure out the shape's movement?

List examples here:

Topic:

What are the names of the following solid figures:



What is the area, perimeter, and volume of a shape? How do I find the perimeter, how do I find the area, and how do I find the volume. Provide examples.

List examples here:

Topic:

Provide examples of multiplication problems – show in both multiplication and in repeated addition.

List examples here:

Provide examples of fractions – show by dividing circles, rectangles, or squares into the parts and labeling with the fraction.

List examples here:

Appendix C:

What Goes in MY Glog?

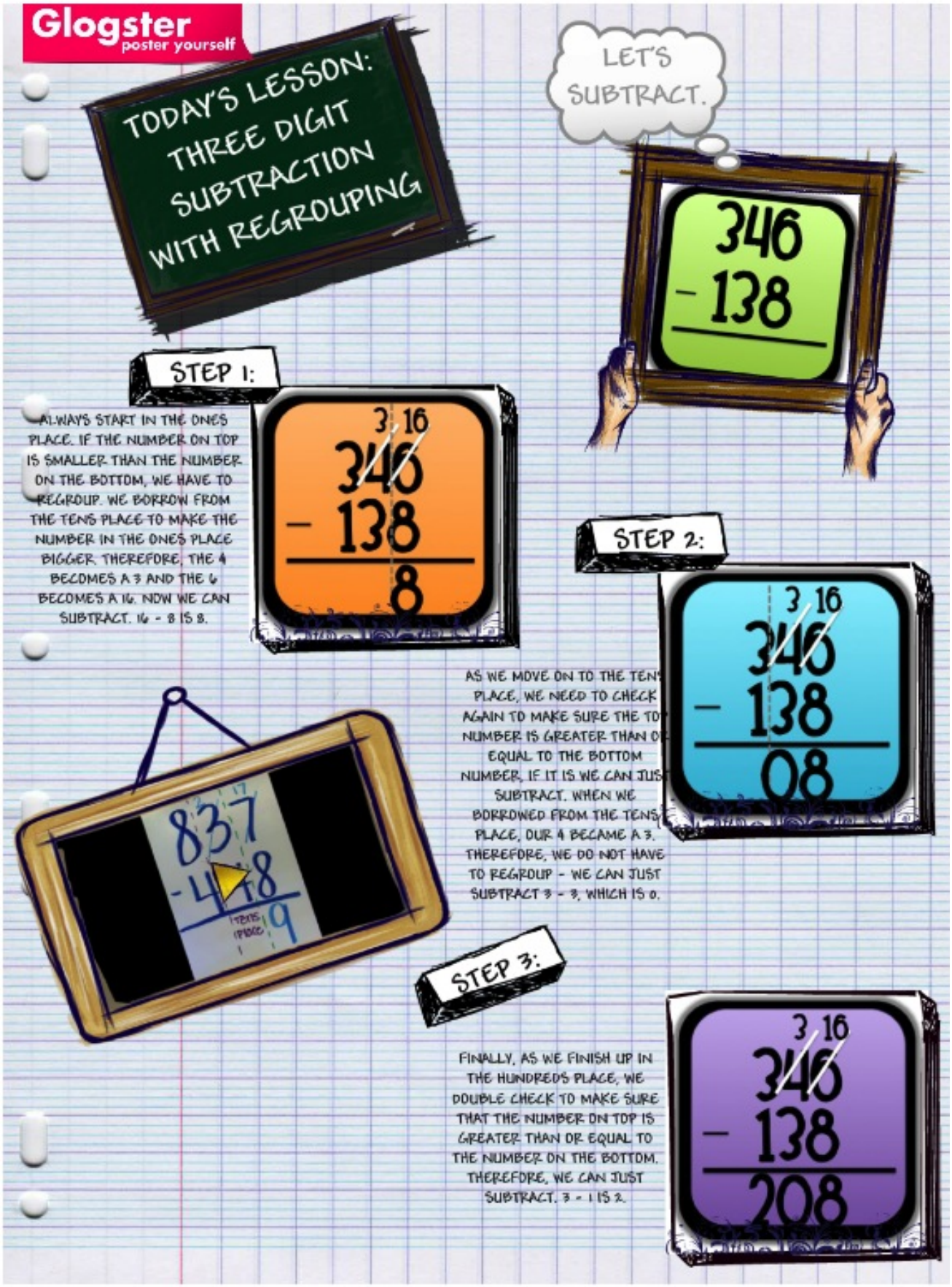
Here is your checklist of everything you need to include in your Glog. Remember when adding each of these things just use the toolbar on the side called - **Magnet Tool.**

- ☐ The title of your Glog – this should be your math topic and both your name and your partner's name.
  (click text in the toolbar).
- ☐ A background for your Glog.
  (click wall in the toolbar).
- ☐ <u>At least</u> **one** image that goes along with your topic. This can be an image you create on the computer, an image already in Glogster, a picture you take, or an image from the internet.
  (click image in the toolbar).
- ☐ <u>At least</u> **two** text boxes that include a description of your topic – what you will be talking about to help "reteach" your topic.
  (click text in the toolbar).
- ☐ Add any other details to your Glog to make it unique – images, sounds, text, etc.
- ☐ Save room to insert the video of your presentation.

_____

Name

Appendix D:


Glogster
poster yourself
TODAY'S LESSON:
THREE DIGIT
SUBTRACTION
WITH REGROUPING
LET'S
SUBTRACT.
346
- 138
STEP 1:
ALWAYS START IN THE ONES PLACE. IF THE NUMBER ON TOP IS SMALLER THAN THE NUMBER ON THE BOTTOM, WE HAVE TO REGROUP. WE BORROW FROM THE TENS PLACE TO MAKE THE NUMBER IN THE ONES PLACE BIGGER. THEREFORE, THE 4 BECOMES A 3 AND THE 6 BECOMES A 16. NOW WE CAN SUBTRACT. 16 - 8 IS 8.
3 16
346
- 138
8
STEP 2:
AS WE MOVE ON TO THE TENS PLACE, WE NEED TO CHECK AGAIN TO MAKE SURE THE TOP NUMBER IS GREATER THAN OR EQUAL TO THE BOTTOM NUMBER. IF IT IS WE CAN JUST SUBTRACT. WHEN WE BORROWED FROM THE TENS PLACE, OUR 4 BECAME A 3. THEREFORE, WE DO NOT HAVE TO REGROUP - WE CAN JUST SUBTRACT 3 - 3, WHICH IS 0.
3 16
346
- 138
08
837
- 418
9
STEP 3:
FINALLY, AS WE FINISH UP IN THE HUNDREDS PLACE, WE DOUBLE CHECK TO MAKE SURE THAT THE NUMBER ON TOP IS GREATER THAN OR EQUAL TO THE NUMBER ON THE BOTTOM. THEREFORE, WE CAN JUST SUBTRACT. 3 - 1 IS 2.
3 16
346
- 138
208

Reflection:

For our Lesson Plan assignment I chose to incorporate the Glogster technology into my end of the year math presentations. Before taking this course, I had considered myself as somewhat of an expert when it came to "all things technology". I was the "techy" when it came to any quick fixes with the technology in our building, but after completing the assignments for this class (especially the Lesson Plan assignment) I have realized that you really can never know enough when it comes to advances in technology. When I first heard that we would be creating a "glog", I thought it was a misprint for a blog, little did I know that a glog was a digital way to create a poster using all different types of medias. When I completed my own glog, I had realized what a great learning tool this would be for my own students and my first thought was the end of the year math presentations. Glogster creates an opportunity for my second grade students to really embrace the use of technology in the classroom. Teaching at a private school, technology is something that is VERY limited and unfortunately not used as often as it should be in the classroom. Creating a glog, allows for the students to see that technology can be incorporated in many different ways and in a variety of subjects. This user-friendly and easy to navigate website I felt would be perfect for my "tech savvy" 21st Century students.

In addressing the three TPACK knowledge areas – content, pedagogical, and technological knowledge, I believe that using Glogster enhanced my learning as well as my students learning in each of these areas. In looking back on the lesson and the technology I incorporated, in terms of content knowledge, both the students and myself were made aware of the content we had covered this year in mathematics. I think it was

important for not only myself but for the students as well to know exactly how much they learned this year and to be able to share that with their peers can be an excellent learning and motivational experience. In reflecting on the use of pedagogical knowledge in this lesson, because it is a lesson towards the end of the year I think it meets all of the pedagogical principles. After working with my students over the course of the year, I have a very good understanding of how each student learns and the classroom management techniques have already been in place. With this lesson, the students are working with a partner that I have chosen for them based on their learning styles and personalities. This lesson is also before the end of the year math assessment, which provides a great review of our topics as well as a way to "test" their knowledge before they take the assessment. Finally, in terms of technology knowledge the use of Glogster for this assignment improved the students understanding of incorporating technology into an assignment as well as producing an end product. The students had to be more efficient with the information they shared in the space they had and they also could enhance their presentations with sounds and images to hold the attention of their peers. Overall, the use of a glog has improved not only the way I taught the subject matter but also the way the students interacted with both the technology and their math curriculum.

In designing this lesson plan, I truly believe the use of technology improved the understanding of the math topics. The students were able to see math from a new angle using a very visually appealing technology. Also, working with a partner on this technology creates the opportunity for more meaningful learning experiences with their peers. Their peers can answer questions and math problems are explained in a much different way than what they are used to. Although, I believe this technology is the

perfect fit for a second grade class, I do believe it may be difficult to design their poster layout. I also think it may be a bit of a challenge for some students who do not normally use a computer and they may become easily frustrated and not gain as much from the project as their classmates who are more technologically advanced. In looking at both the affordances and constraints, I think this technology would be best implemented with our science units as a wrap up of specific topics and in our language arts unit describing our weekly vocabulary words. Overall, this lesson showed me the many different ways I can incorporate technology into our every day classroom experiences. I think the students will also learn the importance and advantages of using technology in the classroom.