Order of Operations Unit Plan

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School City, State        Stone Bank, WI

Unit Overview
Unit Title
Please Excuse My Dear Aunt Sally – The order of operations

Unit Summary
The students will be learning the order of operations. The students will be using Edmodo to participate in interactive websites, games, polls, etc. They will be required to gain a understanding and record the information on the website. The students will then have to create a PowerPoint to demonstrate that they have a understanding of the order of operations.

Subject Area
Special Education Math

Grade Level
8th Grade

Approximate Time Needed
47 minute, over three days

Unit Foundation
Targeted Content Standards and Benchmarks

ISTE Standards:
• Students will create original works as a means of personal or group expression. Students will create original powerpoints to express their personalized sayings.
• Students will evaluate and select information sources and digital tools based on the appropriateness to specific task.
• Students will plan and manage activities to develop a solution or complete a project. Time management will be required to complete the task within the confines of the class periods.
• Students will apply existing knowledge to generate new ideas, products or processes. Students will use what they already know about Order of Operations (Please Excuse My Dear Aunt Sally) to generate personalized sayings for PEMDAS.

Math Standards:
• B.8.2 Students will perform and explain operations on rational numbers. Students will demonstrate their knowledge of order of operations, create appropriate quiz items, and take the quiz.
• B.8.7 Students will select and use appropriate computational procedures with rational numbers such as creating, using and explaining algorithms using technology. Students will
A.8.5 Students will explain mathematical procedures to others. Students will present their personalized PEMDAS sayings.

### Student Objectives/Learning Outcomes

1. The students will gain an understanding of the Order of Operations by developing a personalized way to remember the math operations.
2. Students will demonstrate their understanding of order of operations by developing a PowerPoint.
3. The students will have to work on their ability to speak in front of others. They will be required to present the final PowerPoint.
4. The final assessment will be the PowerPoint that the will be peer, self, and teacher graded.

### Curriculum-Framing Questions

<table>
<thead>
<tr>
<th>Essential Question</th>
<th>Unit Questions</th>
<th>Content Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will gain a understanding of the Order of Operations by developing a personalized way to remember the math operations?</td>
<td>Will the students be able to use the technology and gain a understanding of the order of operations.</td>
<td>Did the students able to develop a PowerPoint demonstrating that they have a strong understand of the Order of Operations?</td>
</tr>
</tbody>
</table>

### Assessment Plan

#### Assessment Timeline

<table>
<thead>
<tr>
<th>Before project work begins</th>
<th>Students work on projects and complete tasks</th>
<th>After project work is completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>• As a class we will talk about the Order of Operations. I will ask them if they can recall the Order of Operations.</td>
<td>• Based off the information that the students give me will determine the pass at which we will work.</td>
<td>• The students will present the PowerPoint’s to the class.</td>
</tr>
<tr>
<td>• While the students are working on the PEMDAS unit I will be checking for understanding. The students will be required to record information on edmodo.</td>
<td>• The students will be required to take the information from edmodo and turn it into a PowerPoint.</td>
<td>• The PowerPoint’s will be peer, self, and teacher graded.</td>
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### Assessment Summary

The students will be assessed based off the information that they place on the edomodo website. They will be required to take a poll, which will give the teacher feedback about the unit. They will be required to place notes, paragraphs, and PowerPoint’s on the edmodo website. The final assessment
will be based off the final PowerPoint presentation.

Unit Details

Prerequisite Skills

The students will need to know how to develop PowerPoint’s, and Word Documents. The students will also have to be able to locate educational websites that they will need to use for the unit. The use of Edmodo is going to be a large part of this unit so they will need to have a understanding of how to use the website.

Instructional Procedures

Day 1: The student’s will required to watch a short youtube clip about the order of operations. While the students are watching the movie they will be asked to take notes and come up with any questions that they might have about the operations. When they have finished taking their notes they will be asked to type them up into a word document and then place them onto Edomodo.

Day 2: The students will be asked to use their notes to work on an interactive website located on edmodo. When the students have completed the interactive website they will be asked to locate five different educational websites dealing with the order of operations. After they have located the five websites they will have to type a short paragraph about each of the websites that will be turned in on the edmodo website.

Day 3: The students will be asked to create a PowerPoint about the Order of Operations. The students should use the information that they have placed on the Edmodo website to create the presentation. The PowerPoint must explain each step and give examples. The PowerPoint should be 10-12 slides.

Accommodations for Differentiated Instruction

Special Needs Students

This unit is for a special education math class. The unit will be individualized for each student’s needs and abilities. It will incorporate the students IEP goals and all modifications will be based off the students IEP.

Nonnative Speakers

Gifted/Talented Students

Materials and Resources Required For Unit

Technology – Hardware (Click boxes of all equipment needed)

Camera  Laser Disk  VCR
Computer(s)  Printer  Video Camera
Digital Camera  Projection System  Video Conferencing Equip.
DVD Player  Scanner  Other
Internet Connection  Television

Technology – Software (Click boxes of all software needed.)

Database/Spreadsheet  Image Processing  Web Page Development
Desktop Publishing  Internet Web Browser  Word Processing
E-mail Software  Multimedia  Other
Encyclopedia on CD-ROM
<table>
<thead>
<tr>
<th><strong>Printed Materials</strong></th>
<th>Textbooks, curriculum guides, story books, lab manuals, reference materials and so forth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supplies</strong></td>
<td>Essential items that have to be ordered or gathered to implement your unit and are specific to the course of study. It is not necessary to include everyday items that are common to all classrooms.</td>
</tr>
</tbody>
</table>
| **Internet Resources** | www.Edmodo.com  
http://www.harcourtschool.com/activity/operation_snowman/  
www.youtube.com  
| **Other Resources**   | Field trips, experiments, guest speakers, mentors, other students/classrooms, community members, parents, and so forth |