Design a Brochure
Algebra 2 Project
Linear Equations and Inequalities

**Purpose:** For this project, you will be working as a group of two to design a tri-fold brochure or an alternate display that will summarize what you have learned during your study of the unit on linear equations and inequalities. The only exception to working as a group of two is if there is an extra student in the class and that person is assigned by the teacher to be part of a group of three. You may not work on this project alone. Your group participation is an integral part of your grade, therefore if you do not work as a group, the highest score you can get for this project is a 50%.

**Technology Requirements:** The use of technology is required in order to complete this project. You have a number of options available to you. If you are using Microsoft Word or Microsoft Publisher, you can create a tri-fold brochure. Templates for creating tri-fold brochures can be found on-line. If you are using Microsoft PowerPoint, you can create a slide show for your project. Another alternative is to use the on-line glogster web site (http://www.glogster.com/) to create an on-line poster. You are not limited to the technology listed above, but you must have your choice of technology approved by your teacher before completing this project.

**Team Members:** All team members must play an active role in completing this project. Each person will take responsibility for completing certain “jobs”. In order to ensure that this happens, each team member will grade the other members of their team at the end of the project using the attached peer evaluation form. If you do not participate in the completion of this activity, you will not receive the credit for this assignment.

**Grading:** This project will count as a test for term 2. You will be graded using the attached rubric as well as your peer evaluation form. In addition, this project will also be used to assess your progress in the “Innovation” learning expectation. This grade will be a part of your overall grade and will also be reported out separately on your second term report card. Ten points will be deducted from your grade for each day the project is late.

**Project Requirements:** The following information must be included on your project:

- **Cover Page**
  - For a brochure, this must include a title for your brochure and the names of the group members.
  - For a PowerPoint presentation, this must include a title for your slide show and the names of the group members.
For an on-line poster, this must include a title for your poster and the names of the group members

**Vocabulary Section:** The first six questions are required if you are working in a group of two. If working in a group of three, all words are required. These vocabulary terms must be defined in your own words. The definitions can be placed on one panel of a brochure, can be placed on one slide of a PowerPoint, can be placed in a section of the poster, or can be integrated into the presentation in some way. You have 2 days to define these words and submit your definitions to your teacher for approval.

- Relation (member #1)
- Domain (member #1)
- Range (member #1)
- Function (member #2)
- Slope (member #2)
- X-intercept/Y-intercept (member #2)
- Slope-intercept form (member #3)
- Standard form (member #3)
- Perpendicular (member #3)

**Description Sections:** If working in a group of two, you may choose four of the following topics to place on your project. If you are working in a group of three, you must include all of the following topics. You will be assigned unique problems that you will use for each section. You have 1 week to do this work on a separate sheet of paper and submit it to your teacher for approval before it can be placed on your project.

- **Slope**
  - Find the slope of a line given two points
  - Find the slope of a line given a graph
  - Find the slope of a line given an equation

- **Slope-Intercept Form**
  - Write an equation in slope-intercept form given the slope and the y-intercept
  - Write an equation in slope-intercept form given a point and the slope of the line
  - Write an equation in slope-intercept form given two points

- **Standard Form**
  - Write an equation in standard form given slope-intercept form with fractions
  - Write an equation in standard form given slope-intercept form with decimals
  - Write an equation in standard form given point-slope form
- **X-Intercept & Y-Intercept**
  - Find the x- and y-intercepts given an equation in standard form
  - Find the x- and y-intercept given an equation in slope-intercept form

- **Graphing Linear Equations**
  - Graph a line given a point on the line and the slope of the line
  - Graph a line given slope-intercept form
  - Graph a line given standard form
  - Graph a line given the x- and y-intercepts

- **Graphing Linear Inequalities**
  - Solid versus dashed lines
  - Shading

- **Parallel and Perpendicular Lines**
  - Write an equation in slope-intercept form of a line passing through a point parallel to another line
  - Write an equation in slope-intercept form of a line passing through a point perpendicular to another line

- **Word Problem**: Each group will be assigned a real-life word problem that must be solved and included on your project. You will have 3 days to do this word problem on a separate sheet of paper to submit to your teacher for approval before it is placed on your project.

Once all of your work has been approved by your teacher, you will have 1 week to place this information on your brochure, PowerPoint, or poster.

**Timeline Summary for Completion:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td></td>
</tr>
<tr>
<td>Teacher Review and Approval</td>
<td></td>
</tr>
<tr>
<td>Description Section</td>
<td></td>
</tr>
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</tr>
<tr>
<td>Word Problem</td>
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<td></td>
</tr>
<tr>
<td>Presentation Completion</td>
<td></td>
</tr>
</tbody>
</table>

**Audience**: Assume that the audience for this brochure is someone who is not familiar with the information. Be creative. Include all graphs/illustrations necessary to understand your explanation. You can also include illustrations just for fun or decoration as long as it does not take away from understanding the material.
### Design a Brochure
#### Algebra 2 Activity Grading Rubric
#### Linear Equations and Inequalities

<table>
<thead>
<tr>
<th>Learning Expectation</th>
<th>Exceeds Expectation (4)</th>
<th>Meets Expectation (3)</th>
<th>Progressing Toward Expectation (2)</th>
<th>Does Not Meet Expectation (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovation:</strong></td>
<td>Without exception, the student:</td>
<td>With no more than one exception, the student:</td>
<td>With two or more exceptions, the student:</td>
<td>The student never:</td>
</tr>
<tr>
<td>Students will</td>
<td>● Works in a variety of settings to produce meaningful and original results using a variety of resources ● Listens to, shares ideas with, and supports the efforts of other group members and has a positive impact on the group ● Identifies appropriate/valid data, develops an effective strategy to problem solve, and develops a creative and innovative solution to real world problems ● Understands and is versatile in the use of relevant educational resources</td>
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# Learning Expectation

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| **Content:**        | All required sections are completed and include:  
| Students will demonstrate ? through the presentation of the required information in a coherent manner.  
| • Title and Group Member Names  
| • Vocabulary  
| • Description Sections (4 or 6 depending on group size)  
| • Word Problem  | One of the following sections is missing or incomplete:  
| • Title and Group Member Names  
| • Vocabulary  
| • Description Sections (4 or 6 depending on group size)  
| • Word Problem  | Two of the following sections is missing or incomplete:  
| • Title and Group Member Names  
| • Vocabulary  
| • Description Sections (4 or 6 depending on group size)  
| • Word Problem  | Three or more of the following sections is missing or incomplete:  
| • Title and Group Member Names  
| • Vocabulary  
| • Description Sections (4 or 6 depending on group size)  
| • Word Problem  |
| **Accuracy:**       | All math computations are done correctly and mathematical procedures are correct.  | There are 1-2 errors in mathematical computation and/or procedures.  | There are 3-4 errors in mathematical computation and/or procedures.  | There are 5 or more errors in mathematical computation and/or procedures.  |
| Student will demonstrate content literacy by completing all mathematical computations/procedures accurately.  |  |  |  |
| **Responsibility:** | • Completed assignment in a timely manner.  | • Project was one day late.  | • Project was two days late.  | • Project was three or more days late.  |
| Student will demonstrate personal accountability to the school community.  |  |  |  |

Rubric Score: ______________

Peer Evaluation Score: ______________

Total Score: ____________/20 points
Comments: