

**ALGEBRA**

**Lesson Date:** 09/19/22

**Unit/Topic:** Lesson 2.1 – Slope-Intercept Form  
Lesson 2.2 – Point-Slope Form

**Prepared By:** Alvina Lin

<p><b>Overview &amp; Purpose</b> The purpose of this lesson is for students to develop an understanding of the slope-intercept form and the point-slope form of linear equations. Students will work together to practice a variety of problems.</p>	<p><b>Education Standards Addressed</b> F-LE.A.2 - Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).</p>
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	<b>Teacher Guide</b>	<b>Approx. Time</b>		
<p><b>Opener</b> (What type of opener, and what questions do you ask?)</p>	<ul style="list-style-type: none"> <li>Display instructions for the class on the board.</li> <li>Students find a spot in the caddy to place their cell phones.</li> <li>Students gather the supplies they need for class – pass out Topic 2 Packet if any student did not get one last class or if anyone was absent.</li> <li>Pass out students’ exams and test corrections paper and explain the process.</li> <li>Ask students for one or two difficult exam problems to go over together, if any.</li> </ul>	5-15 min	<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>Calculator</li> <li>Pencil</li> <li>Highlighter</li> <li>Topic 2 Packet</li> <li>Quiz Paper (exit ticket)</li> </ul>	
<p><b>Objective</b> (What is the objective statement/essential question you give to your students?)</p>	<ul style="list-style-type: none"> <li>SWBAT write linear equations in two variables using slope-intercept form to represent the relationship between two quantities.</li> <li>SWBAT write and graph linear equations in point-slope form.</li> </ul>	2 min		
<p><b>Lesson</b> (What topics are you going to cover, and how will you cover them? Guided notes, lecture, Powerpoint, guided reading, etc.)</p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><u>Lesson Format:</u> Guided practice, independent/group practice</p> </td> <td style="width: 50%; vertical-align: top;"> <p><u>Lesson Content:</u></p> <ul style="list-style-type: none"> <li>Go through the notes handouts in the packet as a class and highlight important information.</li> <li>Discuss example problems in the notes and have students ask questions and add to the notes as needed.</li> <li>Work through some of the practice problems, letting students choose which ones to work as a class.</li> </ul> </td> </tr> </table>	<p><u>Lesson Format:</u> Guided practice, independent/group practice</p>		<p><u>Lesson Content:</u></p> <ul style="list-style-type: none"> <li>Go through the notes handouts in the packet as a class and highlight important information.</li> <li>Discuss example problems in the notes and have students ask questions and add to the notes as needed.</li> <li>Work through some of the practice problems, letting students choose which ones to work as a class.</li> </ul>
<p><u>Lesson Format:</u> Guided practice, independent/group practice</p>	<p><u>Lesson Content:</u></p> <ul style="list-style-type: none"> <li>Go through the notes handouts in the packet as a class and highlight important information.</li> <li>Discuss example problems in the notes and have students ask questions and add to the notes as needed.</li> <li>Work through some of the practice problems, letting students choose which ones to work as a class.</li> </ul>			
<p><b>Activity</b> (Describe the activity to reinforce this lesson)</p>	<ul style="list-style-type: none"> <li>Students work together in their rows on practice problems, including homework problems. Encourage them to use notes and example problems.</li> <li>Occasionally work a problem together as a class if requested or if many students are having trouble with the same problem.</li> </ul>	30 min	<p><b>Other Resources</b> (e.g. Web, books, etc.)</p> <ul style="list-style-type: none"> <li>Exam Paper</li> <li>Test Corrections Paper</li> </ul>	
<p><b>Formative Assessment</b> (Steps to check for student understanding)</p>	<ul style="list-style-type: none"> <li>Teacher circulates to check that students are correctly solving problems.</li> <li>Use “3-2-1” displayed on fingers to check for understanding.</li> <li>Exit ticket at the end of class to see how much of the lesson students have retained.</li> </ul>	Included in activity time		
<p><b>Summary/Closure</b> (How do you wrap up the day so it will lead into tomorrow?)</p>	<ul style="list-style-type: none"> <li>Pass out quiz paper as the exit ticket and allow students to use their packet on it.</li> <li>Make sure students know to finish 2.1 and 2.2 problems for homework.</li> <li>Students clean up materials and return calculators to the box.</li> <li>Students pick up cellphones from the caddy and pack up.</li> </ul>	10 min	<p><b>Additional Notes</b> <i>Homework:</i> Finish 2.1 and 2.2 Additional Practice in Packet <i>Accommodations:</i> EL students translate with phones.</p>	

**ALGEBRA**

**Lesson Date:** 09/21/22

**Unit/Topic:** Lesson 2.3 – Standard Form

**Prepared By:** Alvina Lin

**Overview & Purpose**

The purpose of this lesson is for students to develop an understanding of the standard form of linear equations. Students will work together to practice a variety of problems.

**Education Standards Addressed**

F-LE.A.2 - Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

	<b>Teacher Guide</b>		<b>Approx. Time</b>	
<p><b>Opener</b> (What type of opener, and what questions do you ask?)</p>	<ul style="list-style-type: none"> <li>• Display instructions for the class on the board.</li> <li>• Students find a spot in the caddy to place their cell phones.</li> <li>• Students gather the supplies they need for class and turn in test corrections if already completed.</li> <li>• Go over any requested homework problems that students had trouble with.</li> </ul>		5-15 min	<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>• Calculator</li> <li>• Pencil</li> <li>• Highlighter</li> <li>• Topic 2 Packet</li> <li>• Quiz Paper (exit ticket)</li> </ul>
<p><b>Objective</b> (What is the objective statement/essential question you give to your students?)</p>	<ul style="list-style-type: none"> <li>• SWBAT write and graph linear equations in standard form.</li> <li>• SWBAT use linear equations in standard form to interpret the x- and y-intercepts in the context of given data.</li> </ul>		2 min	
<p><b>Lesson</b> (What topics are you going to cover, and how will you cover them? Guided notes, lecture, Powerpoint, guided reading, etc.)</p>	<p><u>Lesson Format:</u> Guided practice, independent/group practice</p>	<p><u>Lesson Content:</u></p> <ul style="list-style-type: none"> <li>• Go through the notes handouts in the packet as a class and highlight important information.</li> <li>• Discuss example problems in the notes and have students ask questions and add to the notes as needed.</li> <li>• Work through some of the practice problems, letting students choose which ones to work as a class.</li> </ul>	20 min	
<p><b>Activity</b> (Describe the activity to reinforce this lesson)</p>	<ul style="list-style-type: none"> <li>• Students work together in their rows on practice problems, including homework problems. Encourage them to use notes and example problems to aid the process.</li> <li>• Occasionally work a problem together as a class if requested or if many students are having trouble with the same problem.</li> </ul>		30 min	<p><b>Other Resources</b> (e.g. Web, books, etc.)</p>
<p><b>Formative Assessment</b> (Steps to check for student understanding)</p>	<ul style="list-style-type: none"> <li>• Teacher circulates to check that students are correctly solving problems.</li> <li>• Use “3-2-1” displayed on fingers to check for understanding.</li> <li>• Exit ticket at the end of class to see how much of the lesson students have retained.</li> </ul>		Included in activity time	
<p><b>Summary/Closure</b> (How do you wrap up the day so it will lead into tomorrow?)</p>	<ul style="list-style-type: none"> <li>• Pass out quiz paper as the exit ticket and allow students to use their packet on it.</li> <li>• Make sure students know to finish 2.3 problems for homework.</li> <li>• Students clean up materials and return calculators to the box.</li> <li>• Students pick up cellphones from the caddy and pack up.</li> </ul>		10 min	<p><b>Additional Notes</b> <i>Homework:</i> Finish 2.3 Additional Practice in Packet <i>Accommodations:</i> EL students translate with phones.</p>

**ALGEBRA**

**Lesson Date:** 09/23/22

**Unit/Topic:** Lesson 2.4 – Parallel and Perpendicular Lines

**Prepared By:** Alvina Lin

<p><b>Overview &amp; Purpose</b> The purpose of this lesson is for students to develop an understanding of the relationship between the slopes of parallel and perpendicular lines. Students will work together to practice a variety of problems.</p>	<p><b>Education Standards Addressed</b> G-GPE.B.5 - Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).</p>
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	<b>Teacher Guide</b>		<b>Approx. Time</b>	
<p><b>Opener</b> (What type of opener, and what questions do you ask?)</p>	<ul style="list-style-type: none"> <li>• Display instructions for the class on the board.</li> <li>• Students find a spot in the caddy to place their cell phones.</li> <li>• Students gather the supplies they need for class and turn in test corrections if already completed.</li> <li>• Go over any requested homework problems that students had trouble with.</li> </ul>		5-15 min	<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>• Calculator</li> <li>• Pencil</li> <li>• Highlighter</li> <li>• Topic 2 Packet</li> <li>• Quiz Paper (exit ticket)</li> </ul>
<p><b>Objective</b> (What is the objective statement/essential question you give to your students?)</p>	<ul style="list-style-type: none"> <li>• SWBAT write equations to represent lines that are parallel or perpendicular to a given line.</li> <li>• SWBAT solve real-world problems with parallel or perpendicular lines.</li> </ul>		2 min	
<p><b>Lesson</b> (What topics are you going to cover, and how will you cover them? Guided notes, lecture, Powerpoint, guided reading, etc.)</p>	<p><u>Lesson Format:</u> Guided practice, independent/group practice</p>	<p><u>Lesson Content:</u></p> <ul style="list-style-type: none"> <li>• Go through the notes handouts in the packet as a class and highlight important information.</li> <li>• Discuss example problems in the notes and have students ask questions and add to the notes as needed.</li> <li>• Work through some of the practice problems, letting students choose which ones to work as a class.</li> </ul>	20 min	
<p><b>Activity</b> (Describe the activity to reinforce this lesson)</p>	<ul style="list-style-type: none"> <li>• Students work together in their rows on practice problems, including homework problems. Encourage them to use notes and example problems to aid the process.</li> <li>• Occasionally work a problem together as a class if requested or if many students are having trouble with the same problem.</li> </ul>		30 min	<p><b>Other Resources</b> (e.g. Web, books, etc.)</p>
<p><b>Formative Assessment</b> (Steps to check for student understanding)</p>	<ul style="list-style-type: none"> <li>• Teacher circulates to check that students are correctly solving problems.</li> <li>• Use “3-2-1” displayed on fingers to check for understanding.</li> <li>• Exit ticket at the end of class to see how much of the lesson students have retained.</li> </ul>		Included in activity time	
<p><b>Summary/Closure</b> (How do you wrap up the day so it will lead into tomorrow?)</p>	<ul style="list-style-type: none"> <li>• Pass out quiz paper as the exit ticket and allow students to use their packet on it.</li> <li>• Make sure students know to finish 2.4 problems for homework.</li> <li>• Students clean up materials and return calculators to the box.</li> <li>• Students pick up cellphones from the caddy and pack up.</li> </ul>		10 min	<p><b>Additional Notes</b> <i>Homework:</i> Finish 2.4 Additional Practice in Packet <i>Accommodations:</i> EL students translate with phones.</p>