**Lesson Plan**

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| **Teacher Name:** Heather McNeill | **Course:** Algebra 1 Standard | **Date:** 02/13/12 |

**Part I**

|  |  |
| --- | --- |
| **Unit:** | Linear Functions – Slope-Intercept Form & Point-Slope Form |
| **Benchmark:** | MA.912.A.3.7, MA.912.A.3.10, MA.912.A.3.8 |
| **Literacy Benchmark:** | LA.910.1.61 Use new vocabulary that is introduced and taught directly. |
| **Objective(s):****In student-friendly language** | Students will be able to:* Write and graph the equation of a line in slope-intercept form.
* Recall and describe what point-slope form is.
 |
| **Essential Question:** | Why do we need to know different forms of equations of lines? |
| **Materials/Resources:** | Calculators, Smart Board |
| **Assessments:****Formative/Summative** | Formative: Observations and DiscussionsSummative: Student Homework, Exit Slip |
| **Key Vocabulary** | Slope-intercept form, point-slope form |
| **Homework** | Textbook problems 4-3 # 11 -16. |

**Part II**

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| **High-Yield Strategies:**Check all that apply | **Marzano:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Identifiying Similarities and Differences |  | Summarizing |  | Nonlinguistic Representation |
| x | Generating/Testing Hypotheses |  | Advance Organizer |  | Outlining/Webbing/Multi-Column Notemaking |

**Kagan Structures:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | RallyCoach |  | RallyRobin |  | RoundRobin |
|  | Stand-Up Hand-Up Pair-Up |  | Quiz-Quiz Trade | x | Other: Numbered Heads Together |

**CRISS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Think-Pair Share |  | KWL |  | Jigsaw |
|  | Frayer Model |  | Anticipation Guide |  | Other: |

 |
| **Challenge Level (Bloom):**Check all that apply**Depth of Knowledge****(Webb):**Check all that apply |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Recall | x | Comprehension | x | Application |
| x | Analysis |  | Synthesis |  | Evaluation |

|  |  |  |  |
| --- | --- | --- | --- |
| x | Level 1 (Recall) | x | Level 2 (Skill/Concept) |
| x | Level 3 (Strategic Thinking) |  | Level 4 (Extended Thinking) |

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| **Differentiation:**Check all that apply |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| x | Content | x | Process |  | Product | x | Learning Environment |

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**Part III**

**Write Lesson Plan Here (Follow Phases of the Gradual Release Model)**

**Attach copies of advance organizers, handouts, assignments, Powerpoint or Notebook slides.**

* I will begin with a review of Slope-Intercept from. (Slide 2)
* We will construct the equation of a line in slope-intercept form. (Slide2)
* We will work on a real-world problem using slope intercept form and graphing the equation. (Slide 3)
* I will begin notes on point-slope form. (Slide 4)
* We will construct the equation of a line in point-slope form. (Slide 4)
* We will write equations of line in point-slope form using a point and the slope. (Slide 5)
* They will work in groups to find the point and slope from given equations. (Slide 6)
* They will check each others’ answers. (Slide 6)
* We will attempt to think about the challenge question. (Slide 7)
* They will practice writing equations in point-slope form given two points. (Slide 8)
* They will individually complete the exit slip. (Slide 9)

**Part IV**

**Higher Order Questions I will ask in this lesson (write them out):**

* What information is needed to write an equation in point-slope form?
* How can we write an equation in point slope form given two points?

**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| **Teacher Name:** Heather McNeill | **Course:** Algebra 1 Standard | **Date:** 02/14/12 |

**Part I**

|  |  |
| --- | --- |
| **Unit:** | Linear Functions – Point-Slope Form |
| **Benchmark:** | MA.912.A.3.7, MA.912.A.3.10, MA.912.A.3.8 |
| **Literacy Benchmark:** | LA.910.1.61 Use new vocabulary that is introduced and taught directly. |
| **Objective(s):****In student-friendly language** | Students will be able to:* Write and graph the equation of a line in point-slope form.
* Convert equations of lines from point-slope to standard and slope-intercept.
 |
| **Essential Question:** | Why do we need to know different forms of equations of lines? |
| **Materials/Resources:** | Calculators, Smart Board |
| **Assessments:****Formative/Summative** | Formative: Observations and DiscussionsSummative: Student Homework, Exit Slip |
| **Key Vocabulary** | Slope-intercept form, point-slope form |
| **Homework** | Textbook problems 4-3 # 1-9 |

**Part II**

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| **High-Yield Strategies:**Check all that apply | **Marzano:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Identifiying Similarities and Differences |  | Summarizing |  | Nonlinguistic Representation |
|  | Generating/Testing Hypotheses |  | Advance Organizer |  | Outlining/Webbing/Multi-Column Notemaking |

**Kagan Structures:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | RallyCoach | x | RallyRobin |  | RoundRobin |
|  | Stand-Up Hand-Up Pair-Up |  | Quiz-Quiz Trade |  | Other: Numbered Heads Together |

**CRISS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Think-Pair Share |  | KWL |  | Jigsaw |
|  | Frayer Model |  | Anticipation Guide |  | Other: |

 |
| **Challenge Level (Bloom):**Check all that apply**Depth of Knowledge****(Webb):**Check all that apply |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Recall | x | Comprehension | x | Application |
| x | Analysis |  | Synthesis |  | Evaluation |

|  |  |  |  |
| --- | --- | --- | --- |
| x | Level 1 (Recall) | x | Level 2 (Skill/Concept) |
| x | Level 3 (Strategic Thinking) | x | Level 4 (Extended Thinking) |

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| **Differentiation:**Check all that apply |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| x | Content | x | Process |  | Product | x | Learning Environment |

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**Part III**

**Write Lesson Plan Here (Follow Phases of the Gradual Release Model)**

**Attach copies of advance organizers, handouts, assignments, Powerpoint or Notebook slides.**

* We will review homework in using Rally Robin.
* We will write equations in point-slope and graph them. (Slide 10 )
* They will write equations of lines from a graphed equation and comparing the differences. (Slide 11, 12 )
* They will make a generalization about how the different forms are related.
* I will show them how to convert form one form to another. (Slide 13)
* They will convert from one form to another. (Slide 14)
* They will complete an exit slip. (Slide 15)

**Part IV**

**Higher Order Questions I will ask in this lesson (write them out):**

* Why do these equations look different?
* Are they two different lines? How do we know?

**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| **Teacher Name:** Heather McNeill | **Course:** Algebra 1 Standard | **Date:** 02/15/12 |

**Part I**

|  |  |
| --- | --- |
| **Unit:** | Linear Functions – Parallel Lines |
| **Benchmark:** | MA.912.G.1.4, MA.912.A.3.10,  |
| **Literacy Benchmark:** | LA.910.1.61 Use new vocabulary that is introduced and taught directly. |
| **Objective(s):****In student-friendly language** | Students will be able to:* Recognize what makes lines parallel.
* Write equations of line that are parallel.
 |
| **Essential Question:** | Why do we need to know different forms of equations of lines? |
| **Materials/Resources:** | Calculators, Smart Board |
| **Assessments:****Formative/Summative** | Formative: Observations and DiscussionsSummative: Student Homework, Exit Slip |
| **Key Vocabulary** | Parallel lines |
| **Homework** | 4-4 Practice # 1-10 WS |

**Part II**

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| **High-Yield Strategies:**Check all that apply | **Marzano:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Identifiying Similarities and Differences |  | Summarizing |  | Nonlinguistic Representation |
| x | Generating/Testing Hypotheses |  | Advance Organizer |  | Outlining/Webbing/Multi-Column Notemaking |

**Kagan Structures:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | RallyCoach |  | RallyRobin |  | RoundRobin |
|  | Stand-Up Hand-Up Pair-Up | x | Quiz-Quiz Trade | x | Other: Numbered Heads Together |

**CRISS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Think-Pair Share |  | KWL |  | Jigsaw |
|  | Frayer Model |  | Anticipation Guide |  | Other: |

 |
| **Challenge Level (Bloom):**Check all that apply**Depth of Knowledge****(Webb):**Check all that apply |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Recall | x | Comprehension | x | Application |
| x | Analysis |  | Synthesis |  | Evaluation |

|  |  |  |  |
| --- | --- | --- | --- |
| x | Level 1 (Recall) | x | Level 2 (Skill/Concept) |
| x | Level 3 (Strategic Thinking) |  | Level 4 (Extended Thinking) |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Differentiation:**Check all that apply |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| x | Content | x | Process | x | Product |  | Learning Environment |

 |

**Part III**

**Write Lesson Plan Here (Follow Phases of the Gradual Release Model)**

**Attach copies of advance organizers, handouts, assignments, Powerpoint or Notebook slides.**

* I will review homework.
* We will discuss the picture of the house. (Slide 17)
* I will write equations of graphed lines. (Slide 18)
* We will write equations of graphed lines. (Slide 18)
* They will make a generalization about the equations of the graphed lines. (Slide 18)
* They will write the equation of a line that is parallel and check that their generalization holds. (Slide 19)
* They will formally state their rule for parallel lines. (Slide 20)
* We will write the equation of a line parallel to the given line. (Slide 21)
* They will, in groups decide which lines are parallel and then check their friends. (Slide 22)
* They will quiz-quiz-trade cards testing if the equations are parallel.
* They will complete an exit slip. (Slide 23)

**Part IV**

**Higher Order Questions I will ask in this lesson (write them out):**

* What makes these lines parallel?
* What determines the steepness of a line, how much it goes up or down?
* What is necessary for two lines to never intersect?

**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| **Teacher Name:** Heather McNeill | **Course:** Algebra 1 Standard | **Date:** 02/16/12 |

**Part I**

|  |  |
| --- | --- |
| **Unit:** | Linear Functions – Perpendicular Lines |
| **Benchmark:** | MA.912.A.3.7, MA.912.A.3.10, MA.912.A.3.8 |
| **Literacy Benchmark:** | LA.910.1.61 Use new vocabulary that is introduced and taught directly. |
| **Objective(s):****In student-friendly language** | Students will be able to:* Recognize what makes lines perpendicular.
* Write equations of perpendicular lines
 |
| **Essential Question:** | Why do we need to know different forms of equations of lines? |
| **Materials/Resources:** | Calculators, Smart Board |
| **Assessments:****Formative/Summative** | Formative: Observations and DiscussionsSummative: Student Homework |
| **Key Vocabulary** | Perpendicular lines |
| **Homework** | 4-4 Practice # 11 -20 WS |

**Part II**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **High-Yield Strategies:**Check all that apply | **Marzano:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Identifiying Similarities and Differences |  | Summarizing |  | Nonlinguistic Representation |
| x | Generating/Testing Hypotheses |  | Advance Organizer | x | Outlining/Webbing/Multi-Column Notemaking |

**Kagan Structures:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | RallyCoach |  | RallyRobin |  | RoundRobin |
|  | Stand-Up Hand-Up Pair-Up | x | Quiz-Quiz Trade |  | Other: Numbered Heads Together |

**CRISS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Think-Pair Share |  | KWL |  | Jigsaw |
|  | Frayer Model |  | Anticipation Guide |  | Other: |

 |
| **Challenge Level (Bloom):**Check all that apply**Depth of Knowledge****(Webb):**Check all that apply |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Recall | x | Comprehension | x | Application |
| x | Analysis |  | Synthesis |  | Evaluation |

|  |  |  |  |
| --- | --- | --- | --- |
| x | Level 1 (Recall) | x | Level 2 (Skill/Concept) |
| x | Level 3 (Strategic Thinking) |  | Level 4 (Extended Thinking) |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Differentiation:**Check all that apply |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| x | Content | x | Process |  | Product | x | Learning Environment |

 |

**Part III**

**Write Lesson Plan Here (Follow Phases of the Gradual Release Model)**

* I will review homework.
* We will discuss the pictures of sports. (Slide 24)
* I will write equations of graphed lines. (Slide 25)
* We will write equations of graphed lines. (Slide 25)
* They will make a generalization about the equations of the graphed lines. (Slide 25)
* They will write the equation of a line that is perpendicular and check that their generalization holds. (Slide 26)
* They will formally state their rule for perpendicular lines. (Slide 27)
* We will write the equation of a line perpendicular to the given line. (Slide 28)
* They will, in groups decide which lines are perpendicular and then check their friends. (Slide 29)
* They will quiz-quiz-trade cards testing if the equations are perpendicular.
* They will complete an exit slip. (Slide 30 )

**Part IV**

**Higher Order Questions I will ask in this lesson (write them out):**

* What makes these lines perpendicular?
* What determines the steepness of a line, how much it goes up or down?
* What is necessary for two lines to intersect?

**Lesson Plan**

|  |  |  |
| --- | --- | --- |
| **Teacher Name:** Heather McNeill | **Course:** Algebra 1 Standard | **Date:** 02/17/12 |

**Part I**

|  |  |
| --- | --- |
| **Unit:** | Linear Functions – Review of equations of Lines |
| **Benchmark:** | MA.912.A.3.7, MA.912.A.3.10, MA.912.A.3.8 |
| **Literacy Benchmark:** | LA.910.1.61 Use new vocabulary that is introduced and taught directly. |
| **Objective(s):****In student-friendly language** | Students will be able to:* Write and graph the equation of a line in slope-intercept form.
* Recall and describe what point-slope form is.
 |
| **Essential Question:** | Why do we need to know different forms of equations of lines? |
| **Materials/Resources:** | Calculators, Smart Board |
| **Assessments:****Formative/Summative** | Formative: Observations and DiscussionsSummative: Exit Slip |
| **Key Vocabulary** | None |
| **Homework** | Carnegie Units |

**Part II**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **High-Yield Strategies:**Check all that apply | **Marzano:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Identifiying Similarities and Differences | x | Summarizing |  | Nonlinguistic Representation |
|  | Generating/Testing Hypotheses |  | Advance Organizer |  | Outlining/Webbing/Multi-Column Notemaking |

**Kagan Structures:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | RallyCoach |  | RallyRobin |  | RoundRobin |
| x | Stand-Up Hand-Up Pair-Up |  | Quiz-Quiz Trade |  | Other: Numbered Heads Together |

**CRISS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Think-Pair Share |  | KWL |  | Jigsaw |
| x | Frayer Model |  | Anticipation Guide |  | Other: |

 |
| **Challenge Level (Bloom):**Check all that apply**Depth of Knowledge****(Webb):**Check all that apply |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | Recall | x | Comprehension | x | Application |
|  | Analysis |  | Synthesis |  | Evaluation |

|  |  |  |  |
| --- | --- | --- | --- |
| x | Level 1 (Recall) | x | Level 2 (Skill/Concept) |
| x | Level 3 (Strategic Thinking) |  | Level 4 (Extended Thinking) |

 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Differentiation:**Check all that apply |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| x | Content | x | Process | x | Product | x | Learning Environment |

 |

**Part III**

**Write Lesson Plan Here (Follow Phases of the Gradual Release Model)**

**Attach copies of advance organizers, handouts, assignments, Powerpoint or Notebook slides.**

* I will review the previous night’s homework.
* We will go through each form of writing linear equations.
* We will fill out the Frayer model for the forms not yet completed. (Slide 32)
* They will stand up hand up pair up and practice converting forms and using information to write equations.

**Part IV**

**Higher Order Questions I will ask in this lesson (write them out):**

* How are these forms related?
* Can you convert one equation into all 3 forms?