# UNIT PLAN TEMPLATE with Prompts

(Save all the bold headings, but replace the regular font prompts with your unit information.)

**UNIT AUTHOR: Andrew Primes**

**UNIT TOPIC:**  Linear Equations. Slope of a line.

Prior: Solving equations

Post: Solving systems of equations.

## 1. UNIT CONTEXT

**Subject/Content Area:** Math

**Course** Algebra 1

**Grade Level** 9-12

**Length of Unit:** Whole unit 1 month, this part 3 days. 10/21-11/5

3, 1hr 45 mins per.

## 2. FACTS ABOUT THE LEARNERS

**Class Profile** Provide your detailed class profile.

**Individual Student Information and Differentiation Strategies**

Consult the Lesson Rational Reflection and the http://www.secondarydifferentiation.weebly.com

**#1 Student - Student with Special Education Need**

**a. Name:** Alex (TPA)

**b. Eligibility:** IEP

**c. Identity:** 10th grader, self isolating

**d. Goals:** improve reading level.

**e. Readiness:** unknown.

**f. Interest:** not enough information provided to determine.

**g. Learning Profile:** self isolating.

**h. Differentiation:** How does this unit differentiate instruction for this student based on above info?

* Vocabulary support
* grouped with students who will aid him in development with the lesson and with his isolationist issues.

**i. Assessment:** The class work, homework, participation in class discussion. The worksheets will give me multiple times to assess the student's ability to complete the tasks. The class discussions will allow me to evaluate his social progress.

**#2 Student - English Language Learner**

**a. Name:** Francisco

**b. ELL Level:** Overall: 2 Listen:2 Speak:4 Read: 1 Write 3

**c. Identity:** 10th grade, Hispanic

**d. Goals:** Pass High School

**e. Readiness:** Repeating Algebra 1

**f. Interest:** ROTC

**g. Learning Profile:** Auditory, Visual

**h. Differentiation:** How does this unit differentiate instruction for this student based on above info?

* Vocabulary support
* grouped with students who will aid him in development with the lesson.

**i. Assessment:** The class work, homework, participation in class discussion. The worksheets will give me multiple times to assess the student's ability to complete the tasks. The class discussions will allow me to evaluate his listening and speaking progress.

**#3 Student – Low Level Student**

**a. Name:** Jovanny

**b. Need:** Individual help and placement in a group that will support him.

**c. Identity:** 9th, Hispanic.

**d. Goals:** Pass all his classes.

**e. Readiness:** Student has passed all previously required classes, not repeat.

**f. Interest:** Guitars, sports.

**g. Learning Profile:** Visual Kinesthetic.

**h. Differentiation:** How does this unit differentiate instruction for this student based on above info?

* Vocabulary support
* grouped with students who will aid him in development with the lesson.

**i. Assessment:** The class work and homework. The worksheets will give me multiple times to assess the student's ability to complete the tasks.

**#4 Student – Average Level Student**

**a. Name:** Rachelle

**b. Need:** Good group support that can help explain things. More time after school.

**c. Identity:** 9th. One triplet. Lives mostly with Mom.

**d. Goals:** Graduate from High school and go to college. Will be first generation.

**e. Readiness:** Complete all prerequisites.

**f. Interest:** Sports.

**g. Learning Profile:** Auditory Visual.

**h. Differentiation:** How does this unit differentiate instruction for this student based on above info?

* Vocabulary support
* grouped with students who will aid him in development with the lesson.

**i. Assessment:** The class work and homework. The worksheets will give me multiple times to assess the student's ability to complete the tasks.

**#5 Student – High Level Student**

**a. Name:** Chassey

**b. Need:** Challenge above what is presented.

**c. Identity:** 12, motivated to pass this class and understand the material.

**d. Goals:** Pass the class so she can move on to higher levels and graduate.

**e. Readiness:** Repeated Algebra 1 two times before.

**f. Interest:** Sports.

**g. Learning Profile:** Visual Auditory.

**h. Differentiation:** How does this unit differentiate instruction for this student based on above info?

* Ability and drive to work further on class problems and to explain it to others providing not just her with support, but others.

**i. Assessment:** The class work and homework. The worksheets will give me multiple times to assess the student's ability to complete the tasks.

**2. Unit Rationale: Enduring Understandings & Essential Questions**

This unit will aid students in their understanding of linear equations and relationships. The unit will also aid students in their understandings of more advanced topics in mathematics. Students will understand how the slope of a line allows us to graph it and what it means to be the slope of a line.

**Enduring Understandings (EU)**

Students will understand that the slope of a line tells us how a line changes. Students will understand that in order to find the slope of a line two points are needed and you need to find the difference between the values at each point. Students will understand how to use problem-solving to investigate linear relationships between two variables.

**Essential Questions**

How do we find out how much a line changes?

How do we find out what the line that looks like that exists between two points?

What does it mean to be a linear equation?

## 3. STANDARDS

**Content & Common Core Standards**

7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

**ELD Standards**

***3. Bridging: Supporting opinions and persuading others*** Negotiate with or persuade others in conversations in appropriate registers (e.g., to acknowledge new information in an academic conversation but then politely offer a counterpoint) using a variety of learned phrases, indirect reported speech (e.g., *I heard you say* X*, and I haven’t thought about that before. However . . .*), and open responses to express and defend nuanced opinions.

## 4. UNIT OBJECTIVES

Cognitive: By the end of the unit, when presented with a set of points, SWBAT find the slope of the line between them, find the y-intercept, and graph the line as demonstrated by the completion of class work and homework. (Standard 7)

Language: By the end of the unit SWBAT present their arguments, attentively listen to others, and present counter arguments while respecting others' opinions as evidenced by students participation in class discussions. (ELD 3)

## 5. ASSESSMENT PLAN

Have an assessment for every objective and standard in unit. Cross-reference the objective and standard for each assessment. Example: Assessment (Objective/Standard #)

Include the following information about each assessment:

* **Name of Assessment** Class work, Homework: Exploring Slope, Homework: Comparing Cost. Class work Exploring Patterns with Lines.
* **Formality:** formal
* **Purpose:** formative
* **Implementation Method:** written free response. Worksheets.
* **Evaluation Criteria:** Provide one rubric for the unit.
* **Feedback Strategies:** Provide students with feedback on answers in class, allow for in class discussion on troubles with homework and class work. Collect work to evaluate for effort and correctness.
* **Student Self-Assessments:** Provide one rubric for the unit.
* **Name of Assessment** Participation.
* **Formality:** informal, formal
* **Purpose:** formative
* **Implementation Method:** written, verbal
* **`Evaluation Criteria:** Provide one rubric for the unit.
* **Feedback Strategies**: In class feedback, feedback via filled out rubric. Informing students of their progress via verbal recognition and evaluated rubric that informs students of their progress.
* **Student Self-Assessments:** from rubistar.

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| Student Name:     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |

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| CATEGORY  | Exceeds  | Meets  | Approaches  | Initiates  | No Evidence  | My Personal Grade  | Ms. Powell's Grade  |
| Politeness  | Always listens to classmates when speaking and raises hand quietly to contribute. Respects peers, teachers, surroundings, and themselves.  | Listens to classmates when speaking and often raises hand quietly to contribute. Respects peers, teachers, surroundings, and themselves.  | Listens to classmates when speaking but sometimes interrupts. Raises hand to contribute and is mostly respectful of peers, teachers, surroundings, and themselves.  | Listens to classmates when speaking but often interrupts and speaks out of turn. Is sometimes respectful of peers, teachers, surroundings, and themselves.  | Interrupts when another classmate is speaking and continuously speaks out of turn. Is rarely respectful of peers, teachers, surroundings, or themselves.  |    |    |
| Promptness  | Always gets to class on time and turns in high quality, completed assignments by the given due date.  | Often gets to class on time and turns in high quality, completed assignments by the given due date.  | Sometimes gets to class on time and turns in decent quality assignments by the given due date.  | Is often late to class and turns in low quality and incompleted assignments.  | Is often late and does not turn in assignments on time.  |    |    |
| Professionalism  | Does not use inappropriate language or gestures. Uses good posture while seated. Shows a willingness to learn. Has a positive attitude.  | Very rarely uses inappropriate language or gestures. Uses good posture while seated. Shows a willingness to learn. Has a positive attitude.  | Very rarely uses inappropriate language or gestures. Uses good posture while seated. Often shows a willingness to learn. Often has a positive attitude  | Uses inappropriate language or gestures. Does not have good posture while seated. Rarely shows a willingness to learn. Often has a negative attitude.  | Often uses inappropriate language or gestures. Does not have good posture while seated. Does not show a willingness to learn. Has a negative attitude.  |    |    |
| Preparedness  | Brings math notebook, writing utensils, and other necessary materials to class everyday and is always ready to do work.  | Brings necessary materials to class 3 out of 4 days and is ready to work.  | Brings necessary materials to class 3 out of 4 days but needs time to settle down and begin working.  | Often forgets needed materials for class and has trouble settling down and beginning work.  | Rarely brings necessary materials and is rarely ready to get to work.  |    |    |
| Problem-Solving  | Actively looks for and suggests solutions to problems. Takes complete class notes.  | Refines solutions suggested by others. Takes complete class notes.  | Does not suggest or refine solutions, but is willing to try out solutions suggested by others. Takes partial class notes.  | Attentive to the classroom discussion or group work, but does not try any problems. Takes partial class notes.  | Does not try to solve problems or help others solve problems. Lets others do the work. Does not take class notes.  |    |    |

## 6. STEPS OF INSTRUCTION

(See “WHERE TO” in Understanding by Design PPT.)

**CALENDAR**

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| --- | --- | --- | --- | --- |
| **Day** | **Dates** | **In-Class Activities** | **Optional** | **Homework** |
| 1 | Mon 10/21Tues 10/22 | Graphing with Ordered Pairs |  | Coordinates and Graphing |
| 2 | Wed 10/23Thu 10/24 | MSA 1.1/1.2Walking Rates |  | MSA Cycling Rates |
| 3 | Fri 10/25Mon 10/28 | MSA 1.3/1.4Raising Money |  | MSA Raising Money |
| 4 | Tue 10/29Wed 10/30 | MSA 2.1/2.2 Walking to Win |  | MSA Walking to Win |
| 5 | Thu 10/31Fri 11/1 | QuizMSA 2.3/2.4Comparing Costs |  | MSA Comparing Costs |
| 6 | Mon 11/4Tue 11/5 | MSA 4.1/4.2Climbing Stairs |  | MSA Climbing Stairs |
| 7 | Wed 11/6Thu 11/7 | MSA 4.3/4.4Exploring Patterns with Lines |  | MSA Exploring Patterns with Lines |
| 8 | Fri 11/8Tue 11/12 | Multiple Forms of Linear Equations |  |  |
| 9 | Wed 11/13Thu 11/14 | De-contextualized/Review |  |  |
| 10 | Fri 11/15Mon 11/18 | Test |  |  |

**Goals:**

* Use problem-solving to investigate linear relationships between two variables.
* Describe patterns of change between independent and dependent variables as represented in tables, graphs, and equations.
* Construct tables, graphs, and equations.
* Interpret information in tables, graphs, and equations and translate from one form to another.
* Understand the connections between equations and the patterns in tables and graphs: rate of change, slope, and y-intercept.
* Use tables, graphs, and equations to solve problems, answer questions and make decisions about linear relationships.

**ANTICIPATORY SET**

What is a line? How do you decide what make a line a line? Start with the Walking Rates worksheet.

**CLOSURE**

Describe the closure, transfer and transition for the end of the unit.

Closure: Students will complete a quiz and a test later on in the unit based upon what was learned in this part of the unit to demonstrate that they have learned what is necessary for them to know from the unit.

Transfer: This unit will carry on throughout the rest of their mathematical learning so they will be practicing it for the rest of the time they are involved in math.

Transition: The next unit is systems of equations. By knowing and understanding what a line means they will be better equipped to understand solving systems of multiple equations.

**WEEK OF LESSON PLANS**

See attached lesson plan.

**7. MATERIALS/RESOURCES**

See attached resource sheet, unit.

**8. REFLECTION**

* I have done some differentiation for my students by providing students with definitions to support their learning.
* I have also provided students with plenty of opportunities to ask questions of other students and the teacher.
* I have provided students who are higher achieving with opportunities to improve upon those abilities and to remain engaged in the classes.
* I should give students more support in order to complete the assignments and more differentiation.

**9. RUBRIC WITH SELF-ASSESSMENT**

* Highlight or circle the criteria on the unit plan rubric that describes your unit plan.
* Turn in your self-assessed (highlighted/circled) rubric as an attachment to your unit plan.
* If you did this unit plan with a partner, you should each score yourselves individually. You should also include at the bottom of the scoring guide an evaluation of how you and your partner worked together.

**UNIT RUBRIC Name**

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| --- | --- | --- | --- |
| **Design Component****& Criteria** | **Approaching** | **Meets**(Include criteria for Approaching & Meets) | **Exceeds**(Include criteria for Approaching, Meets & Exceeds) |
| **Unit Context**1 point | Describes the subject/content area, curse, grade level & … | & describes the length of unit, number of class periods and lengths of periods. | & describe where it fits within the year plan. |
| **Student Facts** 2 points | Provide a complete Class Profile | & describe 5 individual students (ELL, Special Ed, Low Level, Average Level, High Level). Include the student’s name, label, grade level, culture, language, SES, family, affect, individual education goals, readiness (reading, writing and subject area level), interests, & learning profile … | & include information about students’ affects and needs for their learning environment. |
| **Different-iation**3 points | Describe the differentiation strategy(ies) for the 5 individual students…  | & label the strategy (*lesson content, process or product*) and the way it addresses the students identity and developmental needs (*readiness, interest or learning profile*)…  | & provide how the strategy will be assessed for effectiveness and altered if needed. |
| **Unit Rationale**1 point | Explain the importance of unit in the student’s big picture of learning & describes the *enduring understandings* - what student’s will know and be able to do at the end of the unit … | & articulate what *essential questions* you will use to frame the unit … | & label the questions based on the *Six Facets of Understanding.* |
| **Standards and Objectives**1 point | Both CA Content, Common Core and ELD Standards are identified and each is addressed in an objective that contains a condition, verb, and criteria …  | & each objective is labeled by the type (*cognitive, affective, psychomotor or language*) and number of the standard it addresses…  | & identify which of the six facets of understanding it is designed to address. |
| **Assessment**2 points | Provide an assessment for each objective and articulates … | & identify the formality, purpose, implementation method and evaluation criteria.  | & provide description of how you will communicate expectations (rubric), self-assessment process and provide a sample of student work. |
| **Anticipatory Set**1 point | Provide an *anticipatory set* activity for unit … | & describe in detail the steps the teacher will take to implement the anticipatory set for the unit and any needed materials (i.e. graphic organizer, ppt, model, rubric)… | & provide script for teacher and times for each activity. |
| **Calendar**2 points | Provide a unit calendar outlining what is addressed each day (objectives, standards, student activity and assessment) … | & each activity is student centered with multiple opportunities for the instructor to check for understanding… | & provide unit calendar online for students. |
| **Closure**1 point | Provide a *closure* activity for unit … | & describe in detail the steps the teacher will take to implement the closure activities and any needed materials (i.e. graphic organizer, ppt, model, rubric)… | & provide script for teacher and times for each activity. |
| **Lesson Plans**4 points | 3-5 lesson plans are provided for one week of the unit … | & each lesson meets all the requirements specified in their perspective rubrics including all the instructional materials … | & A full scripted Lesson is provided for each day of the week. |
| **Materials & Resources**1 point | Describe all the materials needed to implement the lesson/unit… | & the materials address a range of student needs and variety of interests and learning profiles… | & provide students multiple choices for the content, process and products of the unit. |
| **Reflection**1 point | Address all the reflection prompts about differentiation, strengths and limits of the unit, & effectiveness of unit … | & describe what you learned about yourself and your students… | & identify what you would keep in mind for the next lesson. |
| **Self-Evaluation**5 points will be deducted if not included | Provide a copy of the rubric with the unit plan… | & highlight or circle the criteria for each component… | & provide hand written evidence for each criteria marked and identify what page the component is addressed in the unit. |