Lesson Outline

Lesson Part	Activity description/Teacher does	Students do
Title	Lesson 1	
Standard	A1.1.E Solve problems that can be represented by exponential functions and equations.	
Central Focus (CF)	Students will model exponential growth and decay to help them understand real-world situations such as financial investments, population growth, and radioactive decay.	
Academic Language	Model (function), growth, decay, exponential growth, constant multiplier, starting value, ratio, write an exponential equation (syntax), rate of growth/decay, ordered pairs, graph (syntax), geometric sequence, stage factor, independent variable, exponential form	
Learning Target (LT) (5 min)	Students will be able to name and describe the role of each part of an exponential model. The teacher asks the students to write down the LT The teacher asks students to share their own interpretation of the learning target with the class. The teacher asks students to make a connection to prior knowledge and asks probing questions of the class: Remember when we learned about the parts of the geometric sequence equation? What were some important variables or parts of that equation? What is constant multiplier? What is a starting value? The teacher leads students to recall the academic language terms "constant multiplier" and "starting value". The teacher tells the students that the exponential equations they will learn about are similar to geometric sequences because they also have a constant multiplier and starting value.	Students write the LT in their journals. Two or three students verbally share their interpretations. Students volunteer prior knowledge about geometric sequences. Students take note of this in their journals and ask clarifying questions about the conceptual relationship between geometric sequences and exponential equations.
Inquiry (15 min)	**Directions for the Class:** Using Instructional Material 1.1 (PowerPoint 1, Slide 2), the teacher overviews the agenda for the class period and begins to describe the exponential inquiry: 1) We will turn to page 333 of the *Discovering Algebra* textbook and complete the Bugs, Bugs, Everywhere Bugs investigation. 2) We will work on the table tops using dry erase markers in groups of 3 or 4 3) We will discuss the results after 20 minutes **Begin the Task:** The teacher will direct students to get into self-selected groups and begin the task. The teacher will circulate the room and ensure students understand the directions (Check in with 504 students and SLP students to read directions if necessary) for Investigation 1 (Instructional Material 1.2): "Imagine that a bug population has invaded your classroom. One	Students will ask clarifying questions about the activity. Students will get into groups of 3 or 4 and bring the following supplies: dry erase markers, *Discovering Algebra* textbook, journals. Students will collaborate to answer the investigation question. Students will complete steps: 1: Create a table (see p. 333 in Instructional Material 1.2) and calculate the number of bugs at the end of each week. 2: Calculate the rate of growth

	day you notice 16 bugs. Every day new bugs hatch, increasing the population by 50% each week. So, in the first week the population increases by 8 bugs." In a table like this one, record the total number of bugs at the end of each week for 4 weeks. (Kamischke, E., Kamischke, E., & Key Curriculum Press, 2007, p.333). The teacher will ensure all of the groups reach step 5 of the investigation before beginning the Group Discussion. The teacher will ask students about the following concepts and be aware of the academic language demand for: starting value, constant multiplier, ratio, rate of growth/decay, stage factor, ordered pairs, graph, exponential, geometric sequence, exponential model	3: Graph the first two columns as ordered pairs. 4: Identify the ratio of this week to last week. 5: Calculate the constant multiplier of the populations. Students will demonstrate an understanding of these terms by using them correctly.
Informal Assessment	**Formative Assessment 1.1** The teacher will take a formative assessment by circulating around the room to ask probing questions of the groups and look for common misunderstandings: Lines of Questioning: What is the starting value? How did you calculate the bug population at the start of week 2 (3 and 4)? What pattern do you see in the increase in bugs? What pattern do you see in the ratio of this week to last week? Would you expect that pattern? Why? What is the general trend of the population growth? What real world limits are there to this situation? Common Mistakes: The ratio must be written in the correct order (this week to last week). **How do you determine which number comes first?** The students assume after one calculation that the pattern in the Increase in bugs is +4 each time. **What percent of the current value is added to next week? Is 50% of 16 the same as 50% of 24?**	Students will respond to questions, or ask clarifying questions. The teacher will direct peer-to-peer discussions to answer both conceptual and procedural questions. The students will take notes in their journal based on teacher prompting to "write that idea down." Students will work through calculations to answer questions about constant multipliers.
Group Discussion (5 min)	**Concluding Task Discussion:** The teacher will direct students to clean up the tables and return to their seats. The teacher will ask students to practice academic vocabulary by describing the patterns in the investigation calculations. Example: The **constant multiplier** was 1.5, so the population **grows exponentially**. The teacher will ask the students to volunteer opinions and agree on the value of the **constant multiplier** and **starting value.** The teacher will turn to Instructional Material 1.1 (PowerPoint 1, slide 3), and affirm the correct answer. The teacher will ask students to offer real world limitations to the	Students will return to their seats and clean the table tops. The students will provide answers for what their group determined the constant multiplier to be. Students will agree or disagree and explain why to their peers. Students will volunteer real world limitations. Students will predict how these factors would affect

	growth pattern (i.e. limited food supply, human interaction, etc.	the exponential growth.
Informal Assessment (2 min)	**Formative Assessment 1.2** The teacher will ask the students as a group: Based on our knowledge of geometric sequences, what would the equation be for the sequence of each week's population? The teacher will present PowerPoint 1, slide 4, to the class and ask students to predict in their journals what the exponential equation will be for the investigation population values. The teacher will turn to PowerPoint 1, slide 5, to allow students to compare and revise their thinking.	Students will suggest possible equations, and consider whether they agree with their peer's suggestions. Students will write a prediction for an exponential equation to model the population. Students will compare their prediction to the result and revise their thinking.
Direct Instruction (10 min)	**Introducing the Exponential Model:** The teacher will highlight the differences/similarities between the geometric and exponential equations of the population. Using PowerPoint 1, Slide 5, the teacher will formally introduce the academic language: **initial value, rate of growth, and stage factor**. The teacher will ask 2-3 students to offer an example of a **stage factor.** The teacher will allow students to take notes from the slide and remind them that it is available on the class Fusion Page.	Students will take notes in their journals and ask clarifying questions. Students will take notes on the academic language. 2-3 students will offer an example of a stage factor. Students will take notes.
Closure Assessment of Student Voice (5 min)	**Formative Assessment 1.3** The teacher will direct students to take out a piece of scratch paper, re-read the learning target and write an exit ticket (with a name on it) on the following questions: 1) Rate your confidence level from 1 to 5 (with 5 being the highest) on your level of mastery of the learning target: _____ 2) What parts of the learning target did you struggle with, or do you want to improve upon? 3) Why is it important to master this learning target? 4) What resources could you use to improve your skills and knowledge related to mastering the learning target?	Students will take out a piece of paper, independently re-read the learning target, and respond to the exit ticket questions. Students will turn in the exit ticket into the table group baskets.
Introduction of Unit Project (10 min)	The teacher indicates that the Unit Project (Instructional Material 1.3) will be an opportunity to practice the skills and concepts learned in this lesson. The teacher describes the performance task (due in 4 weeks): The project will be completed **in class** over 4 work days**.** Part 1: A short research journal for 3 real world data sets. Part 2: A 2-4 minute presentation on the exponential data set in the	Students will listen to the information and read the PowerPoint 1, slide 6. Students will ask clarifying questions.

	journal. The teacher will ask: what questions do you have? The teacher shows that class the randomly assigned groups and asks students to meet with their groups and select their data sets. The teacher answers questions about the project expectations. The teacher checks in with each group and encourages students to decide how the work will be divided in the group.	Students will meet with their group members and select one student to pick the randomized data sets. Students have until the end of the period to ask questions and voice concerns over group assignments.

Resources:

Kamischke, E., Kamischke, E., & Key Curriculum Press. (2007). *Discovering algebra: An investigative approach*. Emeryville, CA: Key Curriculum Press. 333

Lesson Outline

Lesson Part	Activity description/Teacher does	Students do
Title	Lesson 2	
Standard	A1.1.E Solve problems that can be represented by exponential functions and equations.	
Central Focus (CF)	Students will model exponential growth and decay to help them understand real-world situations such as financial investments, population growth, and radioactive decay.	
Academic Language	Model (function), growth, decay, exponential growth, constant multiplier, starting value, ratio, write an exponential equation (syntax), rate of growth/decay, ordered pairs, graph (syntax), geometric sequence, stage factor, independent variable, exponential form	
Learning Target (LT) **(2 min)**	Students will be able to identify the exponential rate of growth/decay from real world data. The teacher asks the students to write down the LT	Students write the LT in their journals.
Warm up **(15 min)**	Using PowerPoint 2, Slide 1, the teacher will introduce the warm up by reading the problem statement and advise students to recall prior knowledge of the process used in the Lesson 1investigation to find the constant multiplier. The teacher will invite 1 or 2 students to volunteer to explain how we know the data set is not linear. The teacher will point out that the spacing of the fish speeds in m/s are not equal and elicit from students how to find the constant multiplier in this situation. The teacher will circulate around the classroom, monitor student progress, and ask probing questions. The teacher will encourage students to check answers with each other. Lines of questioning: Which value in the table is the independent variable? Why? How do we calculate the ratio between the different stages? How can we use proportions to find the constant multiplier?	Students will ask clarifying questions about the warm up. A couple of students will offer an explanation of why the data is not linear, and why it is likely exponential. Students will work in table groups to answer the warm up question. Students compare their responses to other student responses as a method self-assessment criteria. Students will respond to questions or ask clarifying

	Are the ratios between different stages the same? Why? How could we calculate a value that describes the approximate constant multiplier? The teacher will provide the following process structure on a document camera: To find the constant multiplier: 1) Find the ratio between two values. 2) Divide by the difference in the stage numbers. The teacher will ask 2-3 students to volunteer answers to the following questions in order to solve the problem: What is the ratio between the y-values of the ordered pair (15, 2702) and (18, 5219)? 5219/2702 = 1.93 What is the different in the stage numbers? 18-15 =3 What do we do next, according to the directions? 1.93/3 =0.61 What is the ratio between the y-values of the ordered pair (18, 5219) and (20, 8120)? 8120/5219= 1.56 What is the different in the stage numbers? 20-18 =2 What do we do next, according to the directions? 1.93/3 =.78 The teacher will ask a student: Do these values seem reasonably close? Why? The teacher will ask a student: How can we find a value in between these two? What is the result? The teacher will transition to the Unit Project by reviewing the process used to find the constant multiplier. The teacher will be aware of the academic language demand of: starting value, constant multiplier, ratio, rate of growth/decay, ordered pairs, graph, exponential, geometric sequence, exponential model, stage factor, independent variable	questions. Students will write down the process in their journals. Students will answer the question or pass to a student-selected peer if uncertain. Students will compare their process to the solution presented and revise their thinking through note taking. Students will provide responses to the questions. Students will take notes and revise their thinking.
Informal Assessment (during the warm-up)	**Formative Assessment 2.1** The teacher will take a formative assessment by circulating around the room to ask probing questions of the groups and look for common misunderstandings: Lines of Questioning:	Students will answer questions posed by the teacher. Students may ask clarifying questions or pass to a peer if uncertain.

	What is the starting value? What pattern do you see in the increase of oxygen consumption? What pattern do you see in the ratio of oxygen consumption in different stages? Would you expect that pattern? Why? Common Mistakes: The ratio must be written in the correct order (Current value to previous value). **How do you determine which number comes first?** If the stage factor increases by more than one, then the student should divide by the number of stages between oxygen consumption values. **If the constant multiplier is applied in each stage, how many times has it been multiplied by the starting value after ____stages?**	After becoming aware of a common misconception, students will revise thinking and practice the correct procedure using correct mathematical reasoning.
Informal Assessment (2 min)	After the warm up, the teacher points to the LT, and has students self-assess student voice of their understanding showing 1-5 fingers. [If student show a low level of confidence the teacher will invite students to ask questions and/or use prior knowledge of geometric sequences as a method of alternative explanation.	Students will covertly self-assess with a fist-to-five.
Direct Instruction (7 min)	Using PowerPoint2, the teacher will review with the class requirements of the Unit Project. The teacher will share the progress goal for the group work day. The teacher will take 5 minutes to show an example of Part 1 and Part 2 of the Unit project. The teacher will allow for questions about the project and hand out a copy of the example to the students for reference.	Students will read the updated requirements and goals for the work day. Students will ask questions about the example project.
Inquiry (25 min)	The teacher will direct students to meet with their groups and begin working on creating a data table for each data set and beginning to test whether the data is exponential or linear. The teacher will ensure students are making connections with the warm up by reminding them to recall how to find ratio between stages and judge if the ratio is a constant multiplier. The teacher will circulate around the room and monitor student progress (Check in with 504 students and SLP students to read directions if necessary). The teacher will encourage peer-to-peer conversations about the data sets. The teacher will probe small groups of students to ensure that they understand that real world data will have some outliers. The teacher examines student responses for independent support. The teacher will be aware of the academic language demand of the following terms: exponential data, linear data, ratio, constant multiplier, stages, and outlier.	Student will get into assigned groups and gather their 3 data sets, directions, and rubric. Students will work to create a table of each data set. Students may divide the work among members or all work on one data set to determine whether or not it is linear. Students will discuss with peers what to do with outliers. Students will respond to questions, or ask clarifying questions. The teacher will direct peer-to-peer discussions to answer both conceptual and procedural questions.
Closure Assessment of	Formative Assessment 2.3	Students will covertly self-assess with a fist-to-five.

Student Voice (2 min)	The teacher will ask students to store their work somewhere safe. The teacher will invite students to self-assess on how confident they feel about using skills from the learning target to continue work on the Unit Project. Assignment of homework: Read Chapter 6, Lesson 2 and take notes on the new vocabulary and examples in the chapter [The teacher will ensure that all students have access to the Fusion Page. Students could access a hard copy or online copy to complete this assignment.]	Students will either write down the homework assignment to be retrieved from the online Fusion Page, or pick up a hard copy before leaving class.

Lesson Outline

Lesson Part	Activity description/Teacher does	Students do
Title	Lesson 3	
Standard	A1.7.A Sketch the graph for an exponential function of the form $y = ab^n$ where n is an integer, describe the effects that changes in the parameters of a and b have on the graph, and answer questions that arise in situations modeled by exponential functions.	
Central Focus (CF)	Students will model exponential growth and decay to help them understand real-world situations such as financial investments, population growth, and radioactive decay.	
Academic Language	Model (function), growth, decay, exponential growth, constant multiplier, starting value, ratio, write an exponential equation (syntax), rate of growth/decay, ordered pairs, graph (syntax), geometric sequence, stage factor, independent variable, exponential form	
Learning Target (LT) (2 min)	Students will be able to evaluate the effect changes in the starting value and constant multiplier have on the graph of an exponential function. The teacher asks the students to write down the LT The teacher asks students to describe to a partner what the LT means in their own words. The teacher asks 2-3 students to share their interpretation of the LT.	Students write the LT in their journals. Students will discuss with a partner to determine their understanding of the academic language demand. Students will verbally describe what the LT means in their own words.
Warm up (5 min)	**Reminders:** Using PowerPoint 3, slide 2, the teacher will remind students that there will be a quiz on constant multipliers and applying the exponential model to data in the next class session. Using PowerPoint 3, slide 3, the teacher will introduce the warm up The teacher will read the problem statement and instruct students to collaborate in table groups to solve the warm up. The teacher will circulate around the classroom, monitor student	Students will ask clarifying questions about the warm up. Students will work in table groups to answer the warm up question. Students compare their responses to other student responses as a method self-assessment criteria. Students will respond to questions or ask clarifying

	progress (Check in with 504 students and SLP students to read directions if necessary), and ask probing questions. The teacher will encourage students to check answers with each other. Lines of questioning: Which value in the table is the independent variable? Why? How do we calculate the ratio between the different stages? Are the ratios between different stages the same? Why? How do we predict future values in an exponential model? The teacher will ask 2-3 students to volunteer answers. The teacher will be aware of the academic language demand: starting value, constant multiplier, exponential model, ratio, rate of growth/decay, ordered pairs, graph, exponential, geometric sequence, stage factor, independent variable	questions. Students will write down the process in their journals. Students will verbally answer the question or pass to a student-selected peer if uncertain. Students will compare their process to the solution presented by peers and revise their thinking through note taking
Informal Assessment (1 min)	**Formative Assessment 3.1** The teacher will instruct students to rate their confidence on using prior knowledge to complete the warm-up with a fist-to-five self-assessment. The teacher will use this feedback to inform instruction and review further if necessary the concept of constant multipliers.	Students show 1-5 fingers, 1 = not very familiar.
Direct Instruction (2 min)	Using PowerPoint 3, slide 4, the teacher will review the parts of an exponential equation. The teacher will be aware of the academic language demand: starting value, constant multiplier, exponential model, rate of growth/decay, growth, decay, ordered pairs, stage factor	Students will take notes.
Informal Assessment (1 min)	**Formative Assessment 3.2** The teacher will ask students to take 20 seconds and talk with a partner: How do we account for a negative rate ? The teacher will allow 2-3 students to respond to this question.	Students will discuss with a peer how to represent a negative rate. Students will self-assess by listening to peers and evaluating their level of agreement and understanding of the concept of exponential decay
Inquiry (30 min)	**Investigation:** **Directions for the class:** Using PowerPoint 3, slide 5, the teacher will inform students that the next 30 minutes will be used to complete an investigation of a Zombie outbreak in a human population. The teacher will instruct students to begin by deciding roles for the group. The teacher will read the roles and their job description to the class. The teacher will tell the students to begin the activity by reading the problem statement as a group and ensuring everyone in the group	Students will listen to the instructions and ask clarifying questions.

	understands the problem. The teacher will direct students to get into groups of 3 or 4. The teacher will hand out the Zombie Investigation to each student in the group. **Begin the Activity:** The teacher will circulate around the room and monitor student progress as a means of formative assessment. The teacher will probe small groups of students to ensure that they understand the effect of the **constant multiplier** and **starting value** on the graph of an exponential equation. The teacher examines student responses for independent support (Check in with 504 students and SLP students to read directions if necessary). When students have finished the investigation, or if 10 minutes are left in class, the teacher will instruct students to clean up their areas and return to their seats. The teacher will be aware of the academic language demand of the following terms: exponential, ratio, constant multiplier, starting value, stages, growth, and decay.	Students will respond to questions, or ask clarifying questions. Students will engage in peer-to-peer discussions to answer both conceptual and procedural questions. Students will clean up their areas and return to their seats.
Group Discussion/ Closure Assessment of Student Voice (7 min)	**Formative Assessment 3.3** The teacher will turn to PowerPoint 3, slide 6, to lead students in a class discussion through the following questions by giving students **2 minutes** to read and consider the questions: The teacher will go through each question and invite volunteers to answer. 1) Would an exponential model be good to model the spread of disease? Why? 2) What factors affect how quickly a disease spreads? 3) How do the graphs of exponential equations adjust with different rates of growth/decay? 4) How do the graphs of exponential functions change with a larger or smaller starting value? The teacher will invite students who do not volunteer answers to express agreement or disagreement with peers.	Students will consider the questions independently for 2 minutes. Students will express their understanding by answering the questions for the class. Other students will self-assess by comparing their answers to those of their peers. Students will state whether they agree or disagree with peers, and why.
Informal Assessment (5 min)	**Formative Assessment 3.4** The teacher will ask students to take out a scratch piece of paper. The teacher will use PowerPoint 3, slide 7, as an exit ticket. The teacher will re-read the learning target and instruct students to self-assess on the learning target. Students will turn in their tickets to the table group baskets. Assignment of homework: The teacher will instruct students to check the Fusion Page or pick up a hard copy of the Lesson 3 homework. The teacher will instruct students that it is due Feb 11,	Students will self-assess, engaging in student voice, by completing the exit ticket. Students will reflect on how they can improve upon their understanding. Students will pick up homework if they need a hard copy.

	and that it will prepare them for the quiz on Feb 11. [The teacher will plan how much to review in the next period before the quiz, based on the exit ticket results]	

Lesson Outline

Lesson Part	Activity description/Teacher does	Students do

Title	Lesson 4	
Standard	A1.1.E Solve problems that can be represented by exponential functions and equations. A1.7.A Sketch the graph for an exponential function of the form $y = ab^n$ where n is an integer, describe the effects that changes in the parameters of a and b have on the graph, and answer questions that arise in situations modeled by exponential functions.	
Central Focus (CF)	Students will model exponential growth and decay to help them understand real-world situations such as financial investments, population growth, and radioactive decay.	
Academic Language	Model (function), growth, decay, exponential growth, constant multiplier, starting value, ratio, write an exponential equation (syntax), rate of growth/decay, ordered pairs, graph (syntax), geometric sequence, stage factor, independent variable, exponential form	
Learning Target (LT) **(2 min)**	Students will be able to name and describe the role of each part of an exponential model. Students will be able to identify the exponential rate of growth/decay from real world data. Students will be able to evaluate the effect changes in the starting value and constant multiplier have on the graph of an exponential function. The teacher reminds students of the learning targets to be tested on the quiz. The teacher will instruct students to self-assess which learning target they feel most comfortable with and which they feel least comfortable with.	Students will review the learning targets from the lessons covered thus far in the unit that will be tested on the quiz. Students will use self-confidence as a criterion to self- assesses student voice on the learning targets to be tested on the quiz.
Warm up **(8 min)**	**Review Homework:** The teacher will instruct students to take out their homework: Homework Lesson 3. The teacher will invite students up to the document camera to explain their solution to each part of the homework problem. The teacher will ask leading questions and ensure students explain each problem thoroughly by asking other students to volunteer comments or questions for the student presenting.	Students will take out their homework. Students will demonstrate understanding by volunteering answers to the homework problems. Students will compare their process to the solution presented by peers and revise their thinking through note taking

	Lines of questioning: How do we write repeated multiplication in exponential form? Which value in the table is the starting value? How do you know? How do we calculate the ratio between the different stages? Are the ratios between different stages the same? Why? What does an exponential graph look like? How does changing the constant multiplier affect a graph? The teacher will be aware of the academic language demand: starting value, constant multiplier, exponential model, ratio, rate of growth/decay, ordered pairs, graph, exponential equation, geometric sequence, stage factor, independent variable, exponential form	Students will comment on their peer's presentations and ask clarifying questions. Students will verbally answer the question or pass to a student-selected peer if uncertain.
Formal Assessment (30 min)	**Formal Assessment 4.1 (Exponential Quiz 1)** The teacher will read the directions and direct students to work independently on each problem on the quiz. The teacher will circulate the room and monitor for student confusion (Check in with 504 students and SLP students to read directions/questions if necessary). The teacher will encourage students to focus on completing what they do know and not being stuck on areas of confusion. The teacher will modify the assessment for all students if more than 1/3 of students need more time.	Students will independently complete the written quiz.
Informal Assessment (on quiz)	**Formative Assessment 4.1 Quiz Reflection:** The teacher will direct students to complete the reflection on the last page of Exponential Quiz 1. [The teacher will use this information to plan future lessons to present alternative teaching to correct common misconceptions. The teacher will use this information to revise the test.]	Students will write a response to the following questions at the end of the quiz: Rate your level of confidence on this assessment from 1 to 5 Why did you select that level: What resources could you use to improve your skills and knowledge related to mastering the learning target?
Formal Assessment (7 min)	**Formal Assessment 4.1 Continued (Exponential Quiz 1)** The teacher will direct students to trade their quiz with a partner (Check in with 504 student to plan for extra time if necessary) The teacher will instruct students to mark the problem number with an 'X' if an answer is incorrect. The teacher will review the answers to the Exponential Quiz 1 and students will mark each other's papers. The teacher will direct students to return the papers the owner. The teacher will instruct students to record which problem numbers they missed.	Students will trade their quiz with a partner. Students will mark incorrectly answered questions with an 'X'. Students may ask questions if the answer is unclear on the paper. Students will review their quiz and record which problems they missed. The students will turn in the quiz

	The teacher will collect the quizzes to grade in more detail and provide individual feedback.	to the teacher.
Small Group Practice (6 min)	The teacher will instruct students to work in groups on homework related to the quiz. If students missed a problem number on the quiz, then they should complete that corresponding problem number on the homework. The teacher will invite students to work with others to revise their thinking on the problems they missed.	Students will identify which homework problems are required based on their quiz performance. Students will collaborate with peers to revise their thinking and practice mathematical reasoning, procedural fluency, and conceptual understanding.
Informal Assessment	**Formative Assessment 4.2** The teacher will take a formative assessment by circulating around the room to ask probing questions of the groups and look for common misunderstandings: Lines of Questioning: What is the starting value? What is the difference between rate of growth/decay and constant multiplier? Common Mistakes: The constant multiplier ratio must be written in the correct order.	Students will respond to questions, or ask clarifying questions. The teacher will direct peer-to-peer discussions to answer both conceptual and procedural questions. The students will take notes in their journal based on teacher prompting to "write that idea down." Students will work through calculations to answer questions about constant multipliers.
Closure Assessment of Student Voice (1 min)	**Formative Assessment 4.2** The teacher will instruct students to complete the rest of the homework at home. The teacher will ask students to rate themselves from 1 to 5 on mastery of the learning targets after working with a partner.	Students will self-assess with a fist-to-five on their overall confidence with learning targets covered on the Exponential Quiz 1.