

Chapter 1 : Line Graph Worksheets

Line graph worksheets have ample practice skills to analyze, interpret and compare the data from the graphs. Exercises to draw line graphs and double line graphs with a suitable scale; labeling the axes; giving a title for the graph and more are included in these worksheets.

How often do you see graphs throughout your day or week? How much time do you spend reading or looking over a graph each week? What are some different graphs, or graphical representations of data? Bar graphs, line graphs, scatter plots, pie charts, even Venn diagrams. Take a minute to think about the prevalence of graphs and charts in your daily lives. Write down on a piece of paper locations you might see graphs and charts, and what those graphs and charts might represent. After a minute has passed, asked a few students to share their thoughts. Newspapers, magazines, TV news, math class. Expect a wide range of answers for what the graphs and charts represent, for example weather data, economic data and many other topics. Example bar and pie graphs. However, what is more important is that the author has made conscious decisions about how to create and display the graph. Our goal today is to think critically about graphs in order to understand everything their creators are trying to communicate, and clearly articulate the relationship between the variables presented. We are going to think about some of the details embedded in linear data so that we can use appropriate language to discuss the data with our peers. Pass out the Introduction to Variables and Graphs Handout. With the same handout projected on the classroom board for all students to see, go through each problem with students and fill in answers as they do the same on their handouts. Continue on by presenting to students the content information in the Lesson Background section. Review this basic graph format with students. An example graph with its primary components labeled. If a graph involves time, time is always an independent variable, since changes in time are not dependent on any other variables changing. The dependent variable is a variable that changes based on the change in the independent variable. The graph displays the relationship between these two variables; it shows how the dependent variable changes based on the change in the independent variable. Figure 1 shows data points for each observed dependent variable value and its corresponding independent variable value. Each point can be displayed as independent variable value, dependent variable value, for example 8, 7 is a data point on the Figure 1 graph. The graph also displays a best fit line for the data set. While students are not expected to calculate a best fit line, expect them to be able to identify it as the best possible line to capture the trend of the data. Make sure they understand that the line travels through the center of the linear trend of the data points. The equation for the best fit line in Figure 1 is also displayed on the graph. The equation for a line is written in the form: If the line is extended to intersect with the y-axis, the y-intercept is the y-coordinate of that intersection point. The slope of the line is equal to the rate of change in the dependent variable divided by the rate of change of the independent variable. Other ways of stating this are that slope is equal to the change in y over the change in x, or that slope is equal to the rise over the run. Given two points on a line, the slope of that line can be calculated. If the points are x_1, y_1 and x_2, y_2 , slope is equal to: For example, if you want to find the slope of the line on which the points 4. Incorporate any everyday graphs that you have recently seen or come across. Encourage students to discuss and offer their own ideas. Show the class the Introduction to Variables and Graphs Handout via projector and walk through each example noting the important elements that go into describing the relationship between variables. For each graph, write out a two- to three-sentence description utilizing the following words: Use the three graphs on the Interpreting Graphs Worksheet to discuss with students how to appropriately describe the relationship between variables. In advance, go over these worksheet graphs and think through how you would describe them using language that is similar to the normal language you use in the classroom. The observed and recorded change in a value or variable based on the change in the independent variable. A diagram exhibiting the relationship between values and variables. A variable or value that is manipulated or changed. Quantitative data that exhibits a line-like relationship between the dependent and independent variables when graphed. The change in the dependent variable relative to the change in the independent variable. They graph their experimental data and determine best fit lines for the relationship between the variables. They extrapolate information to

make predictions for latex strength of thicker latex. In addition, they predict the wall thickness for a latex strength that can handle psi air pressure.

Chapter 2 : Reading Linear Graphs Worksheets - Printable Worksheets

About "Interpreting graphs worksheets" *Interpreting graphs worksheets: Worksheet on interpreting graphs is much useful to the students who would like to practice problems on describing relationship between two variables x and y by interpreting the graph.*

Obtaining, evaluating, and communicating information Whiteboard Prep Time 25 minutes The goal of this lesson is for students to interact more with multiple representations of uniform accelerated motion. Students have worked and practiced with the new acceleration graphs and motion maps, but in this lesson my aim is for them to explain the graphs and what is happening to an accelerating object. To start out class, I ask students to take out their homework from the night before Worksheet 1 Stacks of Motion Graphs. I ask students to take about 15 minutes to talk with their groups and compare answers. I put a timer on the front projector screen and walk around to make sure that students are focused and so I can answer any questions that they have. My goal is for students to try to talk more to each other before they ask me questions. I will answer questions but I find myself asking "Did you ask everyone in your group yet? After the 15 minutes is up, I tell students that each group will be in charge of whiteboarding one problem and presenting in front of class. I have a whiteboard prepared for the problem that I did as an example in the last class to show them what I expect. I present the problem making sure that I start with the position vs. After I have presented my problem, I ask students if there are any questions. I assign problems by rolling a die and allowing the table group with the rolled number to choose which problem from the packet to whiteboard. I do this so that students have a choice in determining which of the problems that they present. Worksheet 1 Stacks of Motion Graphs Whiteboard Presentations Whiteboard sessions bring out student misconceptions After students have completed their whiteboards for Worksheet 1 Stacks of Motion Graphs , I have students make sure that each person in the group will be speaking during the presentations by selecting beforehand what each group member will say. Since there are four group members, I suggest that one person explain how they got the written description, motion map and each graph velocity vs. Then, I have the group presenting problem 1 stand up at the front of class and begin the presentations. Student whiteboards look similar to the ones below. In whiteboard presentations, my expectations for students when they are presenting are: My expectations for students when they are not presenting are to check their work with the answer on the whiteboard to see if they agree. I make a goal to ask at least one question for each presentation. If there are problems with what the group is presenting on their whiteboard, I ask questions about that. During the whiteboard sessions, I make sure to emphasize that on the velocity vs. I also make sure to emphasize that acceleration vs. Since they have had exposure to the multiple representations of motion, I give them two velocity vs. I give them one that is constant velocity motion and one that is uniform accelerated motion. Since we just had an entire unit on constant velocity motion I anticipate them getting the first stack correct and struggling more with the second, if they struggle with one of them. After students turn them in, I grade them after this class period and hand them back to students during the next class. End of Discussion Checkpoint 1 Worksheet 2: Interpreting Graphs of Accelerated Motion. This worksheet looks at representations of uniform accelerated motion in a different way, by only looking at one graph to determine motion. The first problem has them looking at what is happening to the slope at each point labeled along the curve, as shown below. When students have questions about this problem, I tell them that the best way to look at it is if they draw their slope lines in and see if the slope is getting steeper or less steep. I chose this problem because I want them to see all of the different types of acceleration on a position vs. The second problem gives a quantitative velocity vs. I want students to start to see a connection between our previous units on creating mathematical models to the graphs that we are seeing in the current unit. I also have them to write down 5 important things about acceleration that they learn from reading this section. They read this section because I want them to have background knowledge prior to the discussion in the next lesson.

Chapter 3 : Graph Worksheets | Learning to Work with Charts and Graphs

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Chapter 4 : Graphing Linear and Quadratic Functions Worksheets

Worksheet: Interpreting Graphs C H A P T E R 4: L I N E A R M O T I O N INTERPRETING GRAPHS- As I have said many times in class, "a picture is worth a thou- sand.

Chapter 5 : Graphing Linear and Quadratic Functions Worksheets

Reading Linear Graphs. Showing top 8 worksheets in the category - Reading Linear Graphs. Some of the worksheets displayed are Name reading and interpreting graphs work, Reading linear graphs, Interpreting data in graphs, Tables graphs and equations of linear functions, Bar graph work 1, Lesson interpreting graphs, Graphing lines, Function table t11s1.

Chapter 6 : Graphing Worksheets -Free Printable Worksheets for Teachers | calendrierdelascience.com

These Linear Equations Worksheets will produce problems for practicing graphing lines given the Y-intercept and a ordered pair. You may select the type of solutions that the students must perform. These Linear Equations Worksheets are a good resource for students in the 5th Grade through the 8th Grade.

Chapter 7 : 23 Interpreting Line Graphs Worksheet

1 MCN 02/13/ Overview: This lesson is designed to help students in grades create meaning from line graphs and scatter plots by developing a variety of strategies.

Chapter 8 : Linear graphs word problems (video) | Khan Academy

Graphs. Showing top 8 worksheets in the category - Graphs. Some of the worksheets displayed are Name answer key, Graphs and interpreting data, Pie graph, Data interpreting graphs and tables, Motion graphs pdf, Graphing lines, N e identifying functions, Interpreting distance time graphs.

Chapter 9 : Interpreting graphs worksheets

High School Functions Worksheets Functions are a very elusive concept for many students. They help us understand the world around us and are essential in the business world.