

THE ROCKWELL ADVENTURES  
SOLAR SYSTEM EXPEDITION

# DATA ANALYSIS EXPANSION PACKET

METRIC UNITS

## Credits

Written by Raymond Key. Graphics by StoneOak Media, Farid Sandoval Design, and Shutterstock.

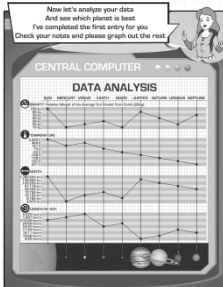
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## How to Use This Expansion Pack

This expansion pack enables students to plot the data they recorded when visiting each planet within The Rockwell Adventures – Solar System Expedition workbook. This packet contains two different data plotting/graphing options. Teachers can use either option during a lesson, *but should not use both*.

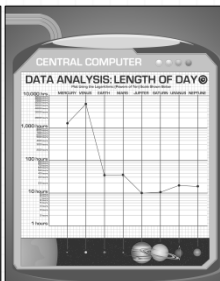
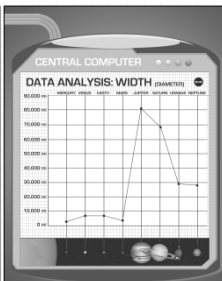
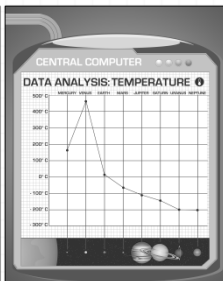
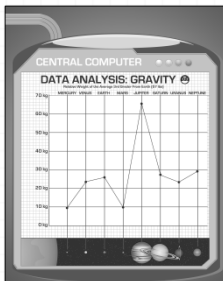
### OPTION 1: Plot All Data On One Page



The first option, available on the second page of this packet, enables students to plot all of their data on one sheet of paper. Once complete, this layout has the benefit of allowing students to see all of their graphs in one location. While convenient, given the limited space on this page, it was not possible to include a complete numerical scale within each graph. For example, when plotting temperature data, students will be able to see that Venus is hotter than the Earth. It won't be apparent from the shape of the graph, however, just how much hotter Venus is.

### OPTION 2: Plot Each Variable On A Separate Page

The second graphing option included in this packet enables students to plot their measurements using a complete numerical scale. Using these charts, located on pages 3-6, students will be able to easily visualize the magnitude of the differences in measured values between the planets. Note:



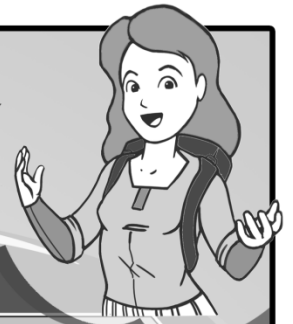
Given that many of the values for the Sun are so much larger than what is found on each planet, to keep the scales in these charts reasonable, we've excluded the Sun from this analysis.

## Additional Resources

Visit us online at [www.StoneOakMedia.com](http://www.StoneOakMedia.com) for additional resources and information:

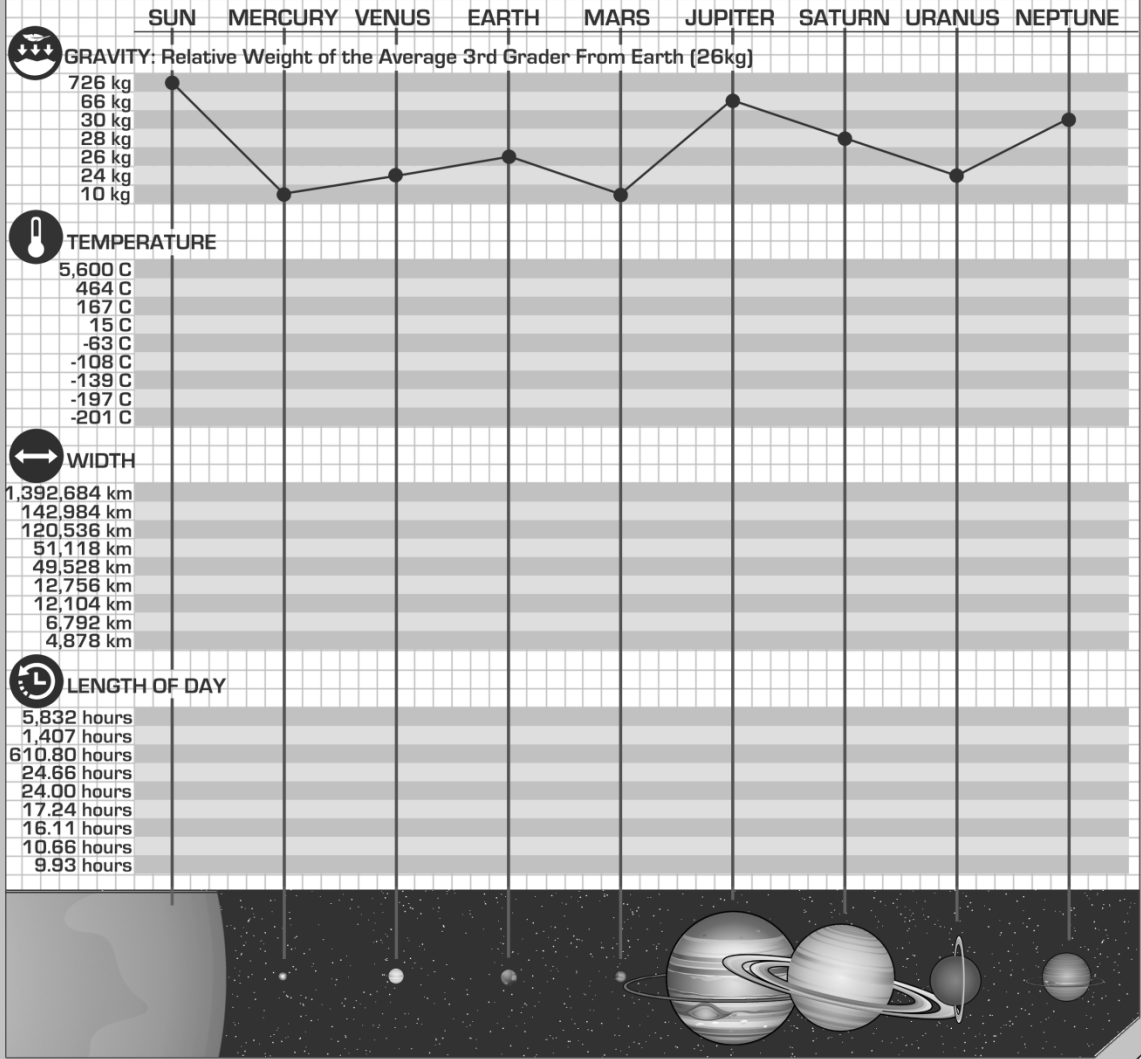
- *FREE Lesson Expansion Packs*
- *State & National Standards Alignment Info*
- *Additional Educational Products*
- *Much More...*

Now, let's analyze your data  
 And see which planet is best  
 I've completed the first entry for you  
 Check your notes and please graph out the rest

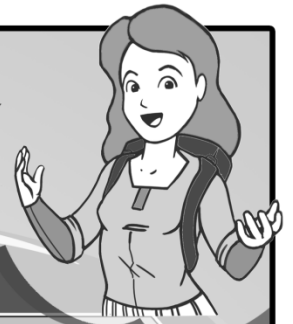


# CENTRAL COMPUTER

## DATA ANALYSIS



Now, let's analyze your data  
 And see which planet is best  
 You can start here by plotting gravity  
 Then turn the page to fill out the rest

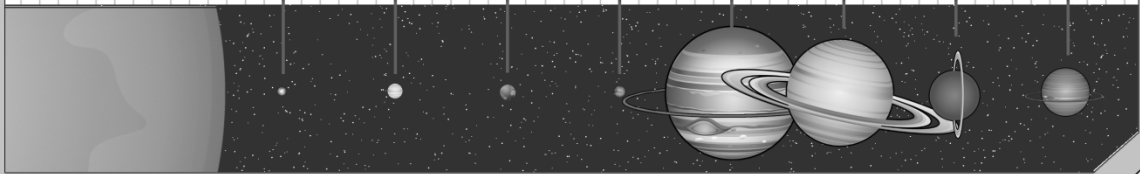
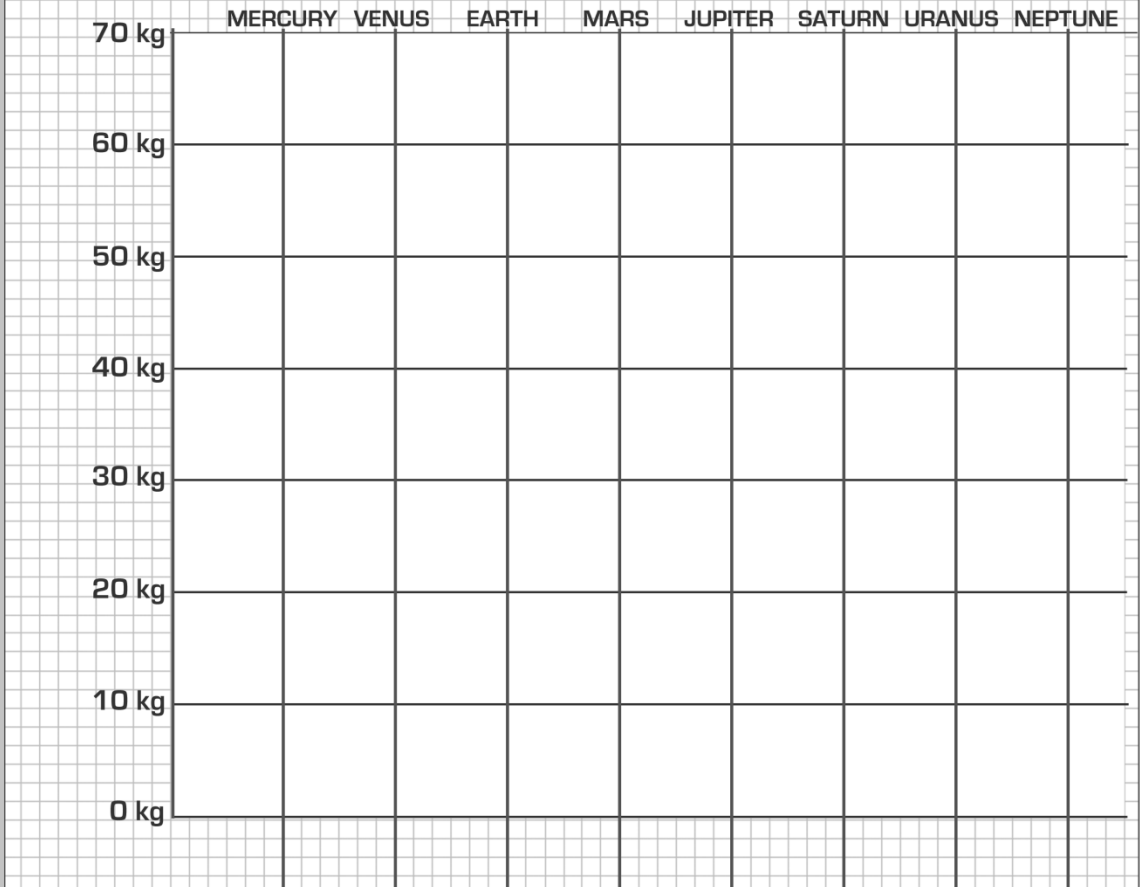


# CENTRAL COMPUTER



## DATA ANALYSIS: GRAVITY

Relative Weight of the Average 3rd Grader From Earth (26 kg)

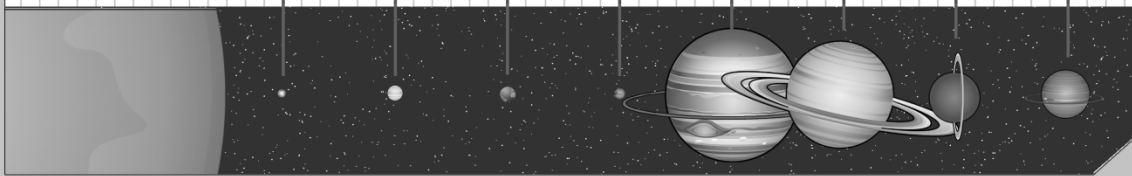


# CENTRAL COMPUTER



## DATA ANALYSIS: TEMPERATURE

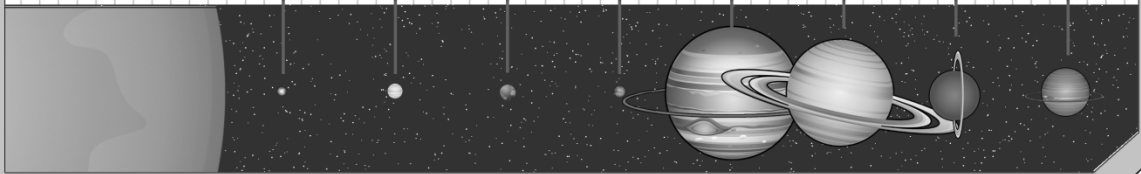
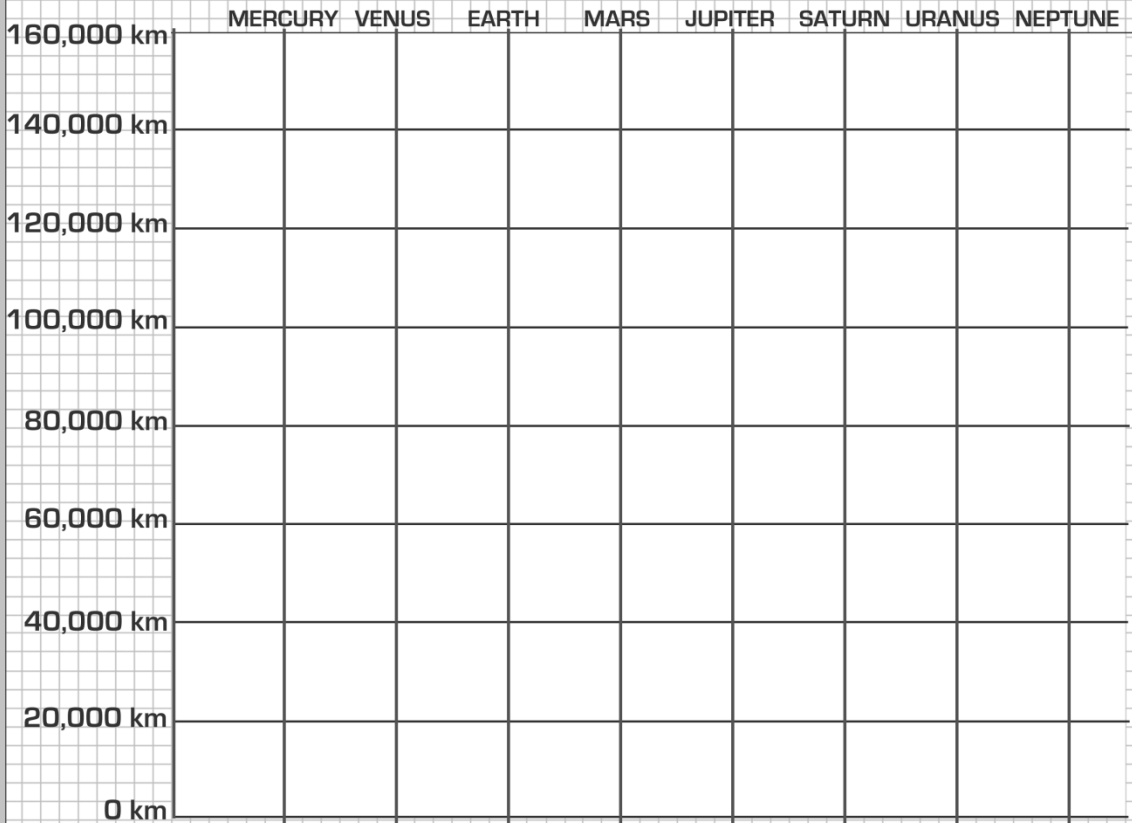
	MERCURY	VENUS	EARTH	MARS	JUPITER	SATURN	URANUS	NEPTUNE
500° C								
400° C								
300° C								
200° C								
100° C								
0° C								
- 100° C								
- 200° C								
- 300° C								



# CENTRAL COMPUTER



## DATA ANALYSIS: WIDTH (DIAMETER)

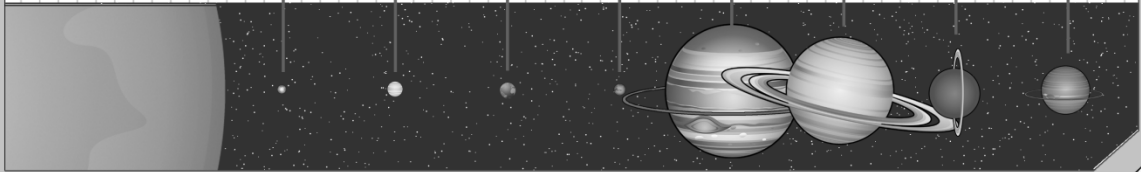


# CENTRAL COMPUTER



## DATA ANALYSIS: LENGTH OF DAY ☼

Plot Using the Logarithmic (Powers of Ten) Scale Shown Below



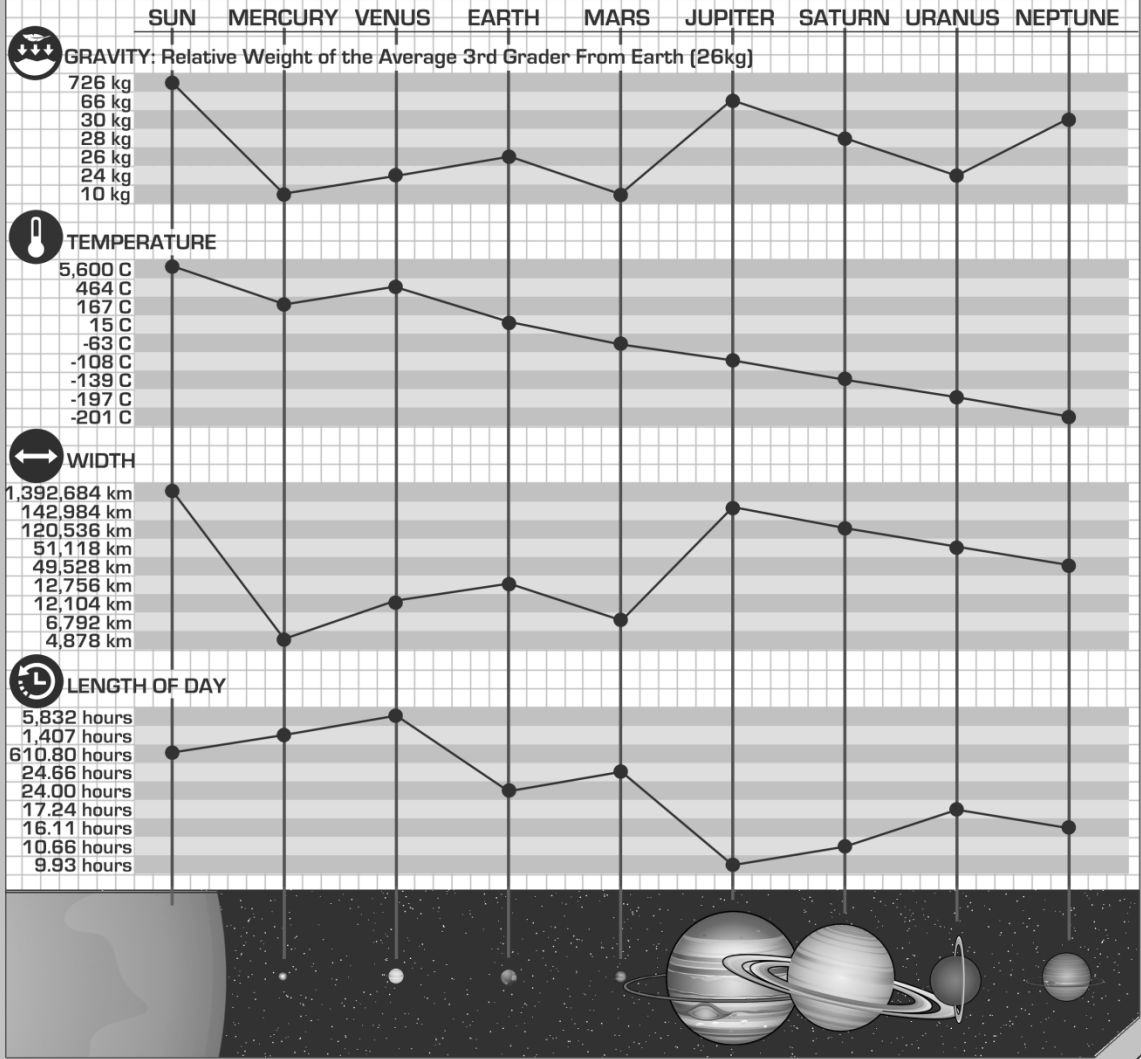
**ANSWER KEY**  
**(FOR TEACHERS)**

Now, let's analyze your data  
 And see which planet is best  
 I've completed the first entry for you  
 Check your notes and please graph out the rest



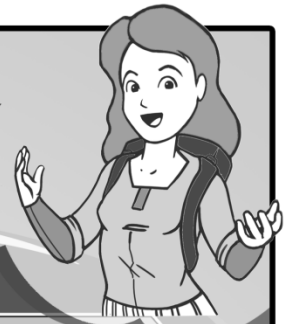
# CENTRAL COMPUTER

## DATA ANALYSIS





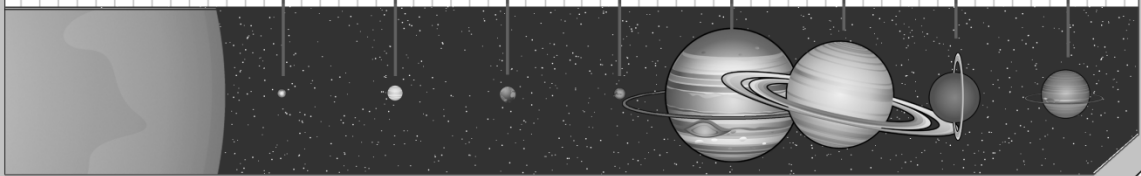
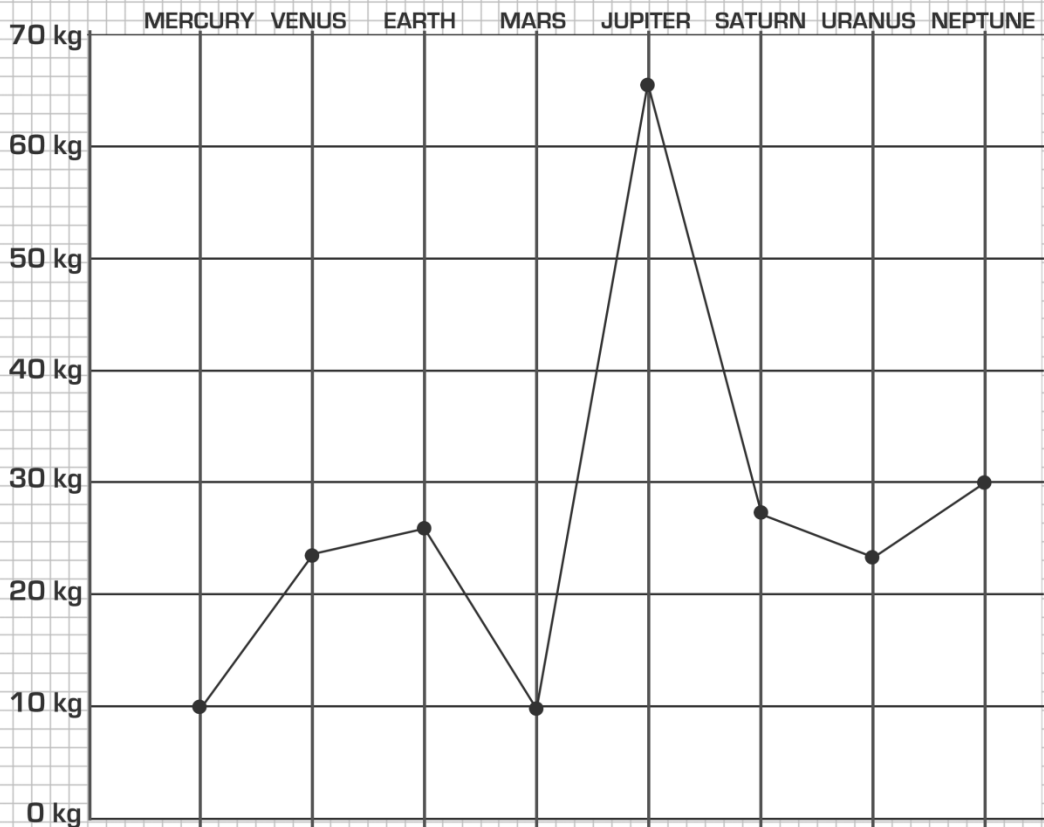
Now, let's analyze your data  
And see which planet is best  
You can start here by plotting gravity  
Then turn the page to fill out the rest



## CENTRAL COMPUTER

### DATA ANALYSIS: GRAVITY

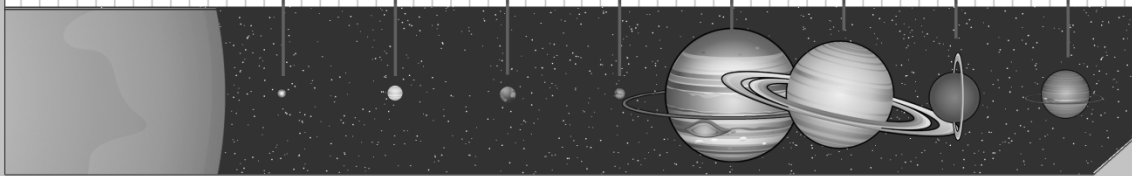
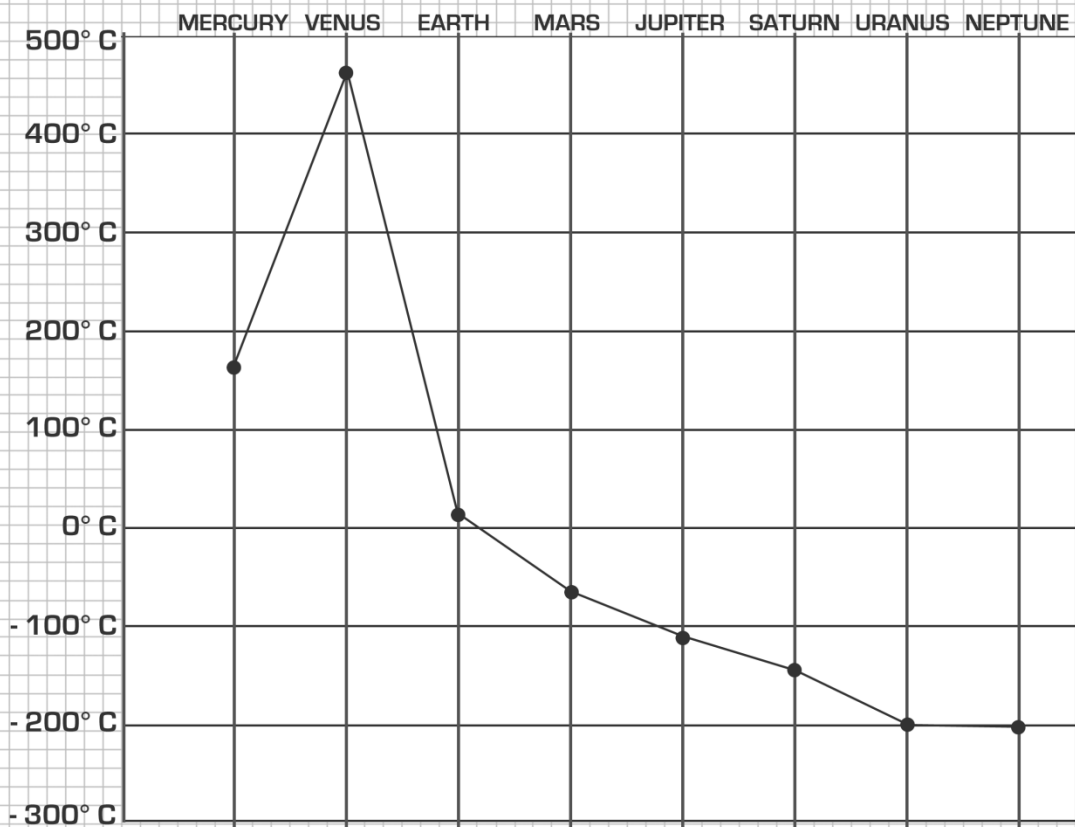
Relative Weight of the Average 3rd Grader From Earth (26 kg)



# CENTRAL COMPUTER



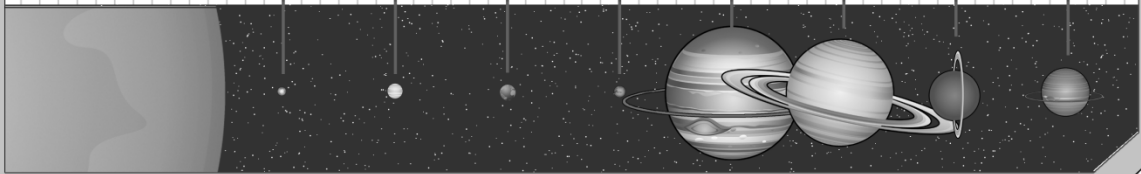
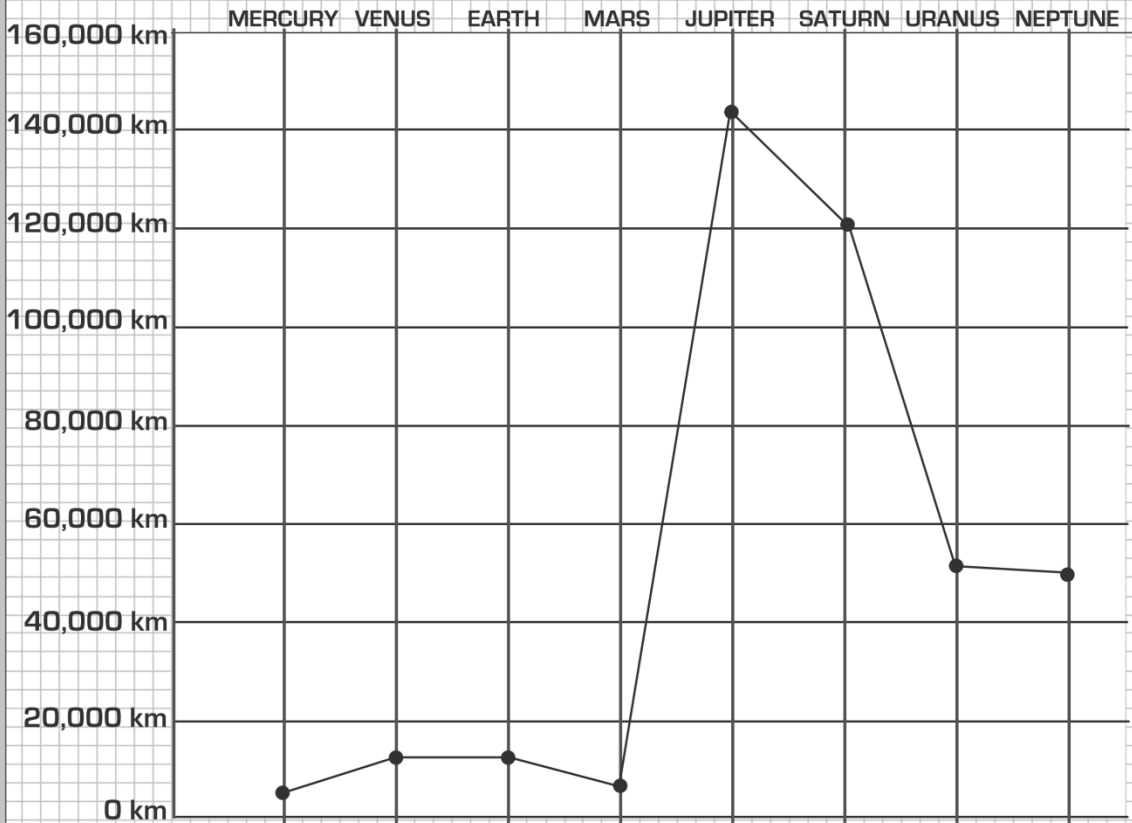
## DATA ANALYSIS: TEMPERATURE



# CENTRAL COMPUTER



## DATA ANALYSIS: WIDTH (DIAMETER)



# CENTRAL COMPUTER



## DATA ANALYSIS: LENGTH OF DAY ☹️

Plot Using the Logarithmic (Powers of Ten) Scale Shown Below

