

AppleWorks: Spreadsheet

Grade 3
Earth Science



Orbiting Moons

TEACHER'S GUIDE

Introduction

In this lesson, students will collect data, enter it into a spreadsheet, create a graph, and analyze the information.

Standards

Sci 4d: Students know that Earth is one of several planets that orbit the Sun and that the Moon orbits the Earth.

Skills

- Highlight/delete
- Make chart/graph (bar)
- Interpret data
- Locate cells, rows and columns
- Move graphics
- Tab between cells

Vocabulary

- Cell
- Row
- Column
- Graph
- Entry bar

Resources

- Harcourt Science -
Chapter 2, Lesson 1, pp 32-41
- Web Resources -
- <http://kids.msfc.nasa.gov/SolarSystems/Planets>
- <http://www.frontiernet.net/~kidpower/planets.html>

Materials

- Computer & printer
- Presentation device
- Student data sheet:
3 OrbitMoon w/s.cwk
- Template : **3 OrbitMoon Template.cwk**
- Textbook
- Internet connection

Teacher Instructions

Before Computer:

- Teacher leads data collection (check out above web sites)
- Enter data on student worksheet
- Discuss spreadsheet vocabulary

At Computer:

- Student opens template
- Save (**moon_name**)
- Enter data in spreadsheet
- Create graph
- Save and Print

After Computer:

Interpret data (answer questions on Template print out at seat)

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3rd Grade
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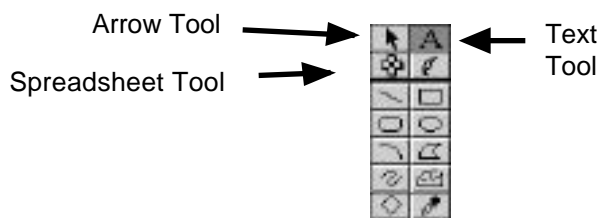


Orbiting Moons

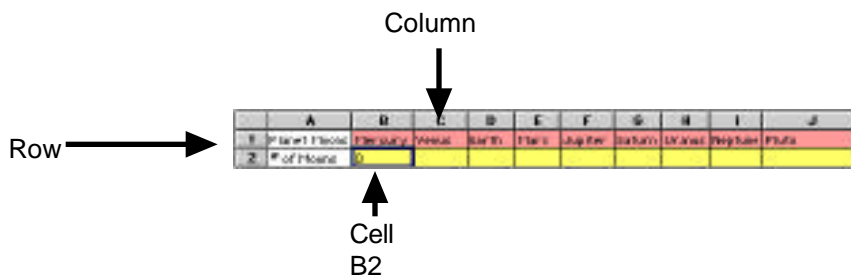
STUDENT INSTRUCTIONS

You should already have completed the worksheet where you found out how many moons orbit each planet. If you have that, the first thing you need to do is open the file **3 OrbitMoon Template**. Put your name in the space provided by clicking with the **Text Tool** in front of the colon and do a **Save**

As. Name your file **moon_ your name** and save it into your document folder.



Now you will enter data into your spreadsheet (the pretty little colored boxes). The boxes going across are called **Rows** and the boxes going down are called **Columns**. Each little box is called a **Cell**.



1. With the **Spreadsheet Tool**, click in cell **B2** (under Mercury).
2. Enter the number of moons for Mercury and hit the **Tab Key**. This will take you to the cell next door (**C2**).
3. Enter your data for Venus and push **Tab** again. Continue for all nine planets.

Now we will make the graph. First we must **select** all of the cells we want included in our graph.

4. With the **Spreadsheet Tool**, in cell **A1** click and drag down to cell **J2**. You'll know you did it right if all of the cells changed color (except **A1**).

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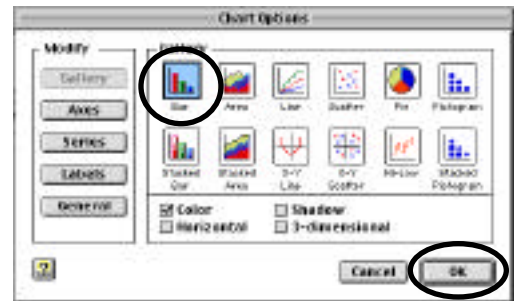
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Earth Science



Orbiting Moons

STUDENT INSTRUCTIONS

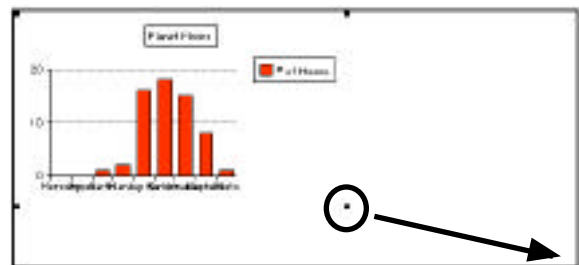
5. Then go to **Options > Make Chart**. In the dialog box that appears, choose **Bar Graph** and click **OK**.



Your graph will appear. If all of the names are jumbled, don't worry. We are going to fix that.

6. Get the **Arrow Tool**, click in the middle of the graph and drag it so the top left corner of the graph is near the top left corner of the black rimmed rectangle.

7. When you clicked on your graph, little black boxes (called **Handles**) popped into all four corners of the graph. Click and drag the bottom right handle and drag it to the bottom right corner of the black rimmed rectangle. Now your graph fills the black rimmed box and those jumbled names can be read easily.



8. Do a quick **Save (⌘-S)** and **Print (File > Print or ⌘-P)** to print your work. You will return to your seat to answer the questions.

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Orbit Moons Links Page

Kid Power Planets (the best choice)

<http://www.frontiernet.net/~kidpower/planets.html>

NASA for Kids

<http://kids.msfc.nasa.gov/SolarSystem/Planets/>





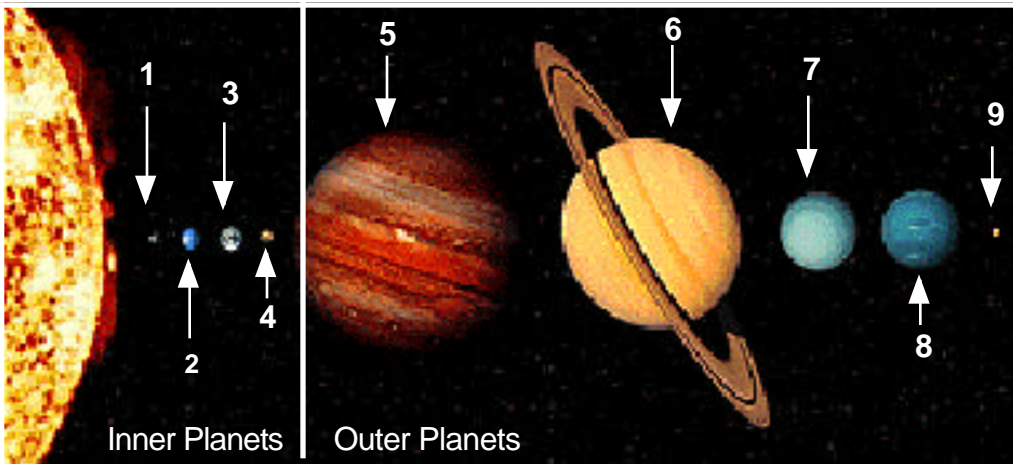
Orbiting Moons Template

Name: _____

	A	B	C	D	E	F	G	H	I	J
1	Planet Moons	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
2	# of Moons									

1. Which planet has the most Moons? _____
2. Which planet has the fewest moons? _____
3. Which planet has the same number of moons as Earth? _____

Extra for Experts: Compare the number of moons orbiting the inner planets with the number of moons orbiting the outer planets.



The Planets

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

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Orbiting Moons Project Sample

Before

Orbiting Moons Name: _____

	A	B	C	D	E	F	G	H	I	J
1 Planet/Moons	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto	
2 # of Moons										

After

Orbiting Moons Name: Bobby Smith

	A	B	C	D	E	F	G	H	I	J
1 Planet/Moons	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto	
2 # of Moons	0	0	1	2	16	18	15	8	1	

Planet Moons

Planet	# of Moons
Mercury	0
Venus	0
Earth	1
Mars	2
Jupiter	16
Saturn	18
Uranus	15
Neptune	8
Pluto	1

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