



4.18: Using Formulas in Excel

Prerequisite Skills and Knowledge

- ∞ Students should be familiar with Microsoft Excel. Students should be able to copy/paste images

Time Required

- ∞ Mini-lesson and guided practice: 20 minutes

Materials

- ∞ Computer Lab, Microsoft Excel, Internet access to the Weather Channel, LCD projector, notebook paper/pencils

Intended Learning

- ∞ Students will be able to use a formula in Excel to find the average temperature/and amount of rainfall in Denver for the last week, and create a graph or chart.

District Technology Standards Produces Quality Work

- ∞ Spreadsheet
- ∞ Uses formulas such as sum, average and differences to create a graph or chart

Big Ideas from Grade 4 Math Year at a Glance

- ∞ Using Numbers and Organizing Data

Mini-Lesson

Connection - preparing students' thinking

Do you know how much rainfall we had in Denver in the last week? Where could we go on the Internet to find weather data? How can we display that data in a graphical format so that we can understand it better?

Teaching - Mini Lesson

Today we are going to use Microsoft Excel to create a spreadsheet of weather data.

Open up Microsoft Excel on the LCD projector and review the toolbars at the top of the screen with students.

Select the Auto Sum character Σ on the toolbar and show the functions available, Sum, Average, Count,

Notes

Max, and Min.

Tell students they will be using the average function today to find the average temperatures and rainfall in Denver for the last week.

Model how to insert numbers into cells and highlight the cells, then select the Auto Sum symbol to find an average of the numbers.

Review how to insert a chart and tell students they may use a bar, line or pie chart to show the average temperatures OR they may create a chart for the average rainfall.

Close Excel and launch Internet Explorer then type in the address: <http://www.weather.com>.

Type in Denver in the search window and show students how to access information.

Tell students they will take notes of the temperatures and rainfall to use in Excel.

Active Engagement - Guided Practice

With students seated at computers, tell them to open Microsoft Excel and save a new worksheet as their name +weather data. Tell them to type in cell A2 today's date, then continue typing the previous days for this week through cell A8. They can just type month/day such as (August 8). Tell students they will go to the weather channel, and write down the temperatures for those days. They can also record the rainfall data from the website. When they have recorded the information, have them highlight the data, select Auto Sum, Average and find the average temperature/rainfall. They will then make their charts for either data entry.

Link

Students should gather information from the Weather Channel, enter into Microsoft Excel to create a spreadsheet, then convert the data into a chart or graph. They should print their finished product.

Independent Practice

Teacher

- ∞ Progress Monitor each student on a checksheet for daily participation and help students individually as needed.

Students

- ∞ Work independently, ask for help as needed, create

Differentiation:

Students who are excelling can peer coach other students or take the assignment to the next level and create a spreadsheet of a country's weather pattern etc.

Students who are struggling may receive extra time or help from other students and/or teacher

graphs, or charts, spreadsheets and print.

Sharing/Closure

- ∞ Students may share their charts/graphs with others in a pair/share exchange, or you may select some to share with the whole group.
- ∞ Ask students to share any difficulties they had, or new techniques they learned for using Microsoft Excel. Review the process for using Autosum to find averages.

Assessment

- ∞ Monitor each student on a checklist for daily participation, and use a rubric with scores of 1-4 for their completed spreadsheet/charts.
- ∞ A score of “4” will be given for a finished document with accurate data, spreadsheet formatted correctly, and chart that displays visual representation of data correctly.

Example of Spreadsheet

Temperature Rainfall

11-Aug
10-Aug
9-Aug
8-Aug
7-Aug
6-Aug
5-Aug