## Englewood Public School District <br> College and Career Readiness Math <br> Third Marking Period

## Unit 3: Excel, Spreadsheets and Real-World Applications

Overview: This unit goes through the fundamentals of Microsoft Excel. Students will learn Excel and should also be introduced to real world scenarios that relate past topics to Excel. It should be noted that the timeframe of this unit will coincide with the SAT exam. For this reason, SAT review and practice should be included as much as possible.

Time Frame: 43 to 47 Days

## Enduring Understandings:

- Excel is a tool that can be used to enter data and to perform various tasks with the data.
- We can use Excel to organize data.
- Excel can create charts and diagrams we can use to present our data.


## Essential Questions:

- What is the essential vocabulary needed to be successful at Excel?
- How do we navigate the spreadsheet?
- How do we create a spreadsheet?
- How do we enter data, insert or delete rows and columns and format rows and columns to fit our style?
- What are the basic formulas that Excel can use?
- How do we use the formulas?
- How can we create a chart?
- What kind of charts can we create?
- What kind of charts will best illustrate our data?
- How do we sort and filter our data?
- How is Excel used in the real world?

| Standards | Topics and Objectives | Activities | Resources | Assessments |
| :---: | :---: | :---: | :---: | :---: |
| MP1, MP2, MP3, MP4, MP5, MP6, MP7, MP8 <br> N-Q.A. 1 Use units as a way to understand problems and to guide the solution of | Topics <br> Excel, creating spreadsheets, using formulas, creating and interpreting diagrams, charts and tables, relating the use of | Excel lessons: <br> http://faculty.kutztown.ed u/schaeffe/excel/excel.htm 1 | Microsoft Excel 2013 <br> https://technology.pitt.edu/sit <br> es/default/files/documents/mi <br> grated/Training/Microsoft\%2 | SAT and Accuplacer review and assessments should be administered as much as possible |

multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

N-Q.A. 2 Define appropriate quantities for the purpose of descriptive modeling.

N-Q.A. 3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

A-CED.A. 1 Create equations and inequalities in one variable and use them to solve problem

S-ID. A. 1 Represent data with plots on the real number line (dot plots, histograms, and box plots).

S-ID. A. 2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

S-ID. A. 3 Interpret
differences in shape, center,
and spread in the context of

Excel to real world scenarios, preparing for the SAT exam and Accuplacer exam.

Twenty-First Century
Themes and Skills include:

- The Four C's
- Global awareness
- Financial, economic, business and entrepreneurial literacy


## Objectives

Students will

- Use technology to create spreadsheets
- Understand the fundamentals of Excel
- Organize data in a spreadsheet
- Create and interpret graphs, charts, diagrams and tables in Excel
- Use formulas in Excel
- Add, delete and organize rows and columns

| Excel exercises and <br> practice exams: <br> http://web.utk.edu/~dhous | 0Excel\%202013\%20Fundam <br> entals\%20Manual.pdf |
| :--- | :--- |
| ton/excel/exercise.html |  |
| Back to school shopping <br> trip: |  |
| https://www.teachervision |  |
| com/spreadsheet- |  |
| skills/back-school- <br> shopping-trip-excel- |  |
| exercise |  |
| Average it! |  |
| https://www.teachervision |  |
| com/spreadsheet- |  |
| skills/average-it-excel |  |

http://web.utk.edu/~dhous ton/excel/exercise.html

Back to school shopping trip:
https://www.teachervision
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skills/back-school-
shopping-trip-excelexercise

Average it!
https://www.teachervision
.com/spreadsheet-
skills/average-it-excel
the data sets, accounting for possible effects of extreme data points (outliers).

S-ID. B. 5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

S-CP. A. 4 Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified.
Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities.

## Career Ready Practices

CRP2, CRP4, CRP6, CRP7, CRP8, CRP10, CRP11,

## CRP12

9.3.ST. 2 Use technology to acquire, manipulate, analyze and report data

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9.3.ST.6 Demonstrate
technical skills needed in a
chosen STEM field.
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9.3.ST-ET.3 Apply
processes and concepts for
the use of technological
tools in STEM.
9.3.ST-SM. 4 Apply critical thinking skills to review information, explain statistical analysis, and to translate, interpret and summarize research and statistical data.
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## Modifications:

- Suggested Strategies for English Language Learners

Key Vocabulary: Excel, row, column, spreadsheet, bar graph, circle graph, cell, status bar, formula bar, ribbon, cell range, column width

