Unit 4: Microsoft Excel (Electronic Workbook)

Content Area: **Business**
Course(s): **Computer Applications**
Time Period: **3rd Marking Period**
Length: **1 Marking Period**
Status: **Published**

Unit Overview

Student will synthesize and apply the fundamental, and most commonly used, features of Microsoft Excel (electronic workbook).

Transfer

Students will be able to independently use their learning to...

-create effective and professional spreadsheets for both personal and business use.

Meaning

Understandings

Students will understand...

-"Electronic workbook," "Excel," and basic Excel terminology and the primary applications of Excel (electronic workbook).

-Basic features of Excel and of the Excel screen/window.

-Excel workbooks, the Excel screen, dialog boxes, and relevant features via mouse and keyboard interface.

-Basic Excel skills. (Including: opening, creating, saving, and printing workbooks; entering, selecting and editing data; formatting cells; formatting worksheets; and applying headers/footers.)

-How to insert, delete, rename, move/copy, and format worksheet tabs.

-How to move/cut, copy, and paste, data to other cells, worksheet, and workbooks.

-Graphics/illustrations (These may include: WordArt, Pictures, Shapes, Text Boxes, and Smart Art.)

-Freeze panes, split the window, hide rows and columns, protect parts of a worksheet, and set print areas.

-Formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, TODAY, NOW, and IF functions)

-Relative and absolute cell references. Define and apply cell/range names.

-Excel's charting features to create, edit, format, and print a variety of Excel charts.

-Linking and working with multiple worksheets and workbooks.

-Features of Excel for organizing and working with data (These may include: searching, replacing, Go To, sorting, and filtering).

-Supporting applications/equipment with Excel. (These may include: other Microsoft applications and the internet.)

-Workplace and personal needs with corresponding Excel features.

-Troubleshooting options for common Excel problems.

Essential Questions

Students will keep considering...

-What are the fundamental, and most commonly used, features of Microsoft Excel? How can I apply these Excel features to be productive in the workplace and in my personal life?

Application of Knowledge and Skill

Students will know...

Students will know...

-"Electronic workbook," "Excel," and basic Excel terminology and the primary applications of Excel (electronic workbook).

-Basic features of Excel and of the Excel screen/window.

-Excel workbooks, the Excel screen, dialog boxes, and relevant features via mouse and keyboard interface.

-Basic Excel skills. (Including: opening, creating, saving, and printing workbooks; entering, selecting and editing data; formatting cells; formatting worksheets; and applying headers/footers.)

-How to insert, delete, rename, move/copy, and format worksheet tabs.

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-Troubleshooting options for common Excel problems.

Students will be skilled at...

Students will ...

-Define and apply "electronic workbook," "Excel," and basic Excel terminology. Identify the primary applications of Excel (electronic workbook).

-Identify and explain the basic features of Excel and of the Excel screen/window.

-Assess and interact with Excel workbooks, the Excel screen, dialog boxes, and relevant features via mouse and keyboard interface.

-Define and apply basic Excel skills. (Including: opening, creating, saving, and printing workbooks; entering, selecting and editing data; formatting cells; formatting worksheets; and applying headers/footers.)

-Apply the skills of insert, delete, rename, move/copy, and format worksheet tabs.

-Apply the skills of move/cut, copy, and paste, data to other cells, worksheet, and workbooks.

-Assess and apply graphics/illustrations (These may include: WordArt, Pictures, Shapes, Text Boxes, and Smart Art.)

-Apply the skills of Freeze panes, split the window, hide rows and columns, protect parts of a worksheet, and set print areas.

-Create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions

include: SUM, AVERAGE, MAX, MIN, COUNT, TODAY, NOW, and IF functions)

-Define and apply relative and absolute cell references. Define and apply cell/range names.

-Apply Excel's charting features to create, edit, format, and print a variety of Excel charts.

-Apply the skills of linking and working with multiple worksheets and workbooks.

-Apply features of Excel for organizing and working with data (These may include: searching, replacing, Go To, sorting, and filtering).

-Integrate supporting applications/equipment with Excel. (These may include: other Microsoft applications and the internet.)

-Synthesize workplace and personal needs with corresponding Excel features.

-Analyze and troubleshoot common Excel problems.

Academic Vocabulary

See attached list of terms/skills.

Learning Goal 1

Student will synthesize and apply the fundamental, and most commonly used, features of Microsoft Excel (electronic workbook).

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CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
CAEP.9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.
TECH.8.1.12	Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
TECH.8.1.12.A.4	Construct a spreadsheet workbook with multiple worksheets, rename tabs to reflect the data on the worksheet, and use mathematical or logical functions, charts and data from all worksheets to convey the results.
TECH.8.1.12.A.CS1	Understand and use technology systems.
TECH.8.1.12.A.CS2	Select and use applications effectively and productively.
TECH.8.1.12.B	Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
TECH.8.1.12.B.CS1	Apply existing knowledge to generate new ideas, products, or processes.

TECH.8.1.12.B.CS2	Create original works as a means of personal or group expression.
TECH.8.1.12.C.CS2	Communicate information and ideas to multiple audiences using a variety of media and formats.
TECH.8.1.12.D.CS1	Advocate and practice safe, legal, and responsible use of information and technology.
TECH.8.1.12.E	Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
TECH.8.1.12.E.CS3	Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.
TECH.8.1.12.E.CS4	Process data and report results.
TECH.8.2.12.A.CS1	The characteristics and scope of technology.
TECH.8.2.12.A.CS3	The relationships among technologies and the connections between technology and other fields of study.
TECH.8.2.12.E.1	Demonstrate an understanding of the problem-solving capacity of computers in our world.

Target 1

Define and apply "electronic workbook," "Excel," and basic Excel terminology. Identify the primary applications of Excel (electronic workbook).

- Define and aply "electronic workbook," "Excel," and basic Excel terminology. Identify the primary applications of Excel (electronic workbook).

Target 2

Identify and explain the basic features of Excel and of the Excel screen/window.

- Identify and explain the basic features of Excel and of the Excel screen/window.

Target 3

Assess and interact with Excel workbooks, the Excel screen, dialog boxes, and relevant features via mouse and keyboard interface.

- Assess and interact with Excel workbooks, the Excel screen, dialog boxes, and relevant features via mouse and keyboard interface.

Target 4

Define and apply basic Excel skills. (Including: opening, creating, saving, and printing workbooks; entering, selecting and editing data; formatting cells; formatting worksheets; and applying headers/footers.)

- Define and apply basic Excel skills. (Including: opening, creating, saving, and printing workbooks; entering, selecting and editing data; formatting cells; formatting worksheets; and applying headers/footers.)

Target 5

Apply the skills of insert, delete, rename, move/copy, and format worksheet tabs.

- Insert, delete, rename, move/copy, and format worksheet tabs.

Target 6

Apply the skills of Move/cut, copy, and paste, data to other cells, worksheet, and workbooks.

- Apply the skills of Move/cut, copy, and paste, data to other cells, worksheet, and workbooks.

Target 7

Assess and apply Graphics/illustrations (These may include: WordArt, Pictures, Shapes, Text Boxes, and Smart Art.)

- Assess and apply Graphics/illustrations (These may include: WordArt, Pictures, Shapes, Text Boxes, and Smart Art.)

Target 8

Apply the skills of freeze panes, split the window, hide rows and columns, protect parts of a worksheet, and set print areas.

- Apply the skills of freeze panes, split the window, hide rows and columns, protect parts of a worksheet, and set print areas.

Target 9

Create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, TODAY, NOW, and IF functions)

- Create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, TODAY, NOW, and IF functions)

Target 10

Define and apply relative and absolute cell references. Define and apply cell/range names.

- Define and apply relative and absolute cell references. Define and apply cell/range names.

Target 11

Apply Excel's charting features to create, edit, format, and print a variety of Excel charts.

- Apply Excel's charting features to create, edit, format, and print a variety of Excel charts.

Target 12

Apply the skills of linking and working with multiple worksheets and workbooks.

- Apply the skills of linking and working with multiple worksheets and workbooks.

Target 13

Apply features of Excel for organizing and working with data (These may include: searching, replacing, Go To, sorting, and filtering).

- Apply features of Excel for organizing and working with data (These may include: searching, replacing, Go To, sorting, and filtering).

Target 14

Integrate supporting applications/equipment with Excel. (These may include: other Microsoft applications and the internet.)

- Integrate supporting applications/equipment with Excel. (These may include: other Microsoft applications and the internet.)

Target 15

Synthesize workplace and personal needs with corresponding Excel features.

- Synthesize workplace and personal needs with corresponding Excel features.

Target 16

Analyze and troubleshoot common Excel problems.

- Analyze and troubleshoot common Excel problems.

Summative Assessment

- Applied Projects
- Applied Quiz/Test

- Optional Classroom Survey
- Optional Written Quiz/Test

Formative Assessment and Performance Opportunities

- Applied Activities/Projects
- Guided Practice
- Peer Review
- Reflective Discussion
- Teacher Observation

Accommodations/Modifications

- Application problems for extra practice
- Scenarios for critical thinking
- Student collaboration to reinforce Excel skills and features

Unit Resources

- Guest Speakers
- Internet Resources
- Technology Software & Hardware
- Textbooks
- Videos

Interdisciplinary Connections

LA.RH.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, qualitatively, as well as in words) in order to address a question or solve a problem.
LA.RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
LA.WHST.11-12.6	Use technology, including the Internet, to produce, share, and update writing products in response to ongoing feedback, including new arguments or information.
MA.S-IC.B.6	Evaluate reports based on data.
MA.S-MD.A	Calculate expected values and use them to solve problems
MA.S-MD.B.5b	Evaluate and compare strategies on the basis of expected values.