

# Unit 4: Microsoft Excel (Electronic Workbook)

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

## Unit Overview

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Students will synthesize and apply the fundamental and advanced features of Microsoft Excel (electronic workbook).

## Transfer

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

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

## Meaning

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## Understandings

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Students will understand...

-“Electronic workbook,” “Excel,” basic Excel terminology, and the primary and more advanced 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, paste, and paste special data to other cells, worksheet, and workbooks

-Graphics/Illustrations/text features. (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.
- How to create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, COUNTA, TODAY, NOW, INT, IF, COUNT IF, VLOOKUP, and HLOOKUP functions). Incorporate the results of formulas/functions in other formulas/functions.
- Relative, absolute, and mixed cell references. Define and apply cell/range names.
- Excel's charting features to create, edit, format, and print a variety of Excel charts.
- Techniques for working with multiple worksheets and workbooks.
- Features of Excel for organizing, linking, and working with data (These may include: searching, replacing, bookmarking, hyper linking, Go To, sorting, multiple level sorting, filtering, and data validation ).
- Table features of Excel
- Review features of Excel.
- Excel features relevant to the Microsoft Certification Exam for Excel.
- How to integrate supporting applications/equipment with Excel. (These may include: other Microsoft applications and the internet.)
- How to address workplace and personal needs with corresponding Excel features.
- Troubleshooting options for common Excel problems.

## **Essential Questions**

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Students will keep considering...

- What are the fundamental and advanced 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**

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### **Students will know...**

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Students will know...

- “Electronic workbook,” “Excel,” basic Excel terminology, and the primary and more advanced 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.)

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

-Techniques for working with multiple worksheets and workbooks.

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

-Table features of Excel

-Review features of Excel.

-Excel features relevant to the Microsoft Certification Exam for Excel.

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

-How to address workplace and personal needs with corresponding Excel features.

-Troubleshooting options for common Excel problems.

## **Students will be skilled at...**

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Students will ...

-Review and define "electronic workbook," "Excel," and basic Excel terminology. Identify the primary and

more advanced applications of Excel (electronic workbook)

- Review, apply, and synthesize the basic features of Excel and of the Excel screen/window.
- Access and interact with Excel workbooks, the Excel screen, dialog boxes, and relevant features via mouse and keyboard interface.
- Review 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.)
- Insert, delete, rename, move/copy, and format worksheet tabs.
- Move/cut, copy, paste, and paste special data to other cells, worksheet, and workbooks
- Assess, synthesize, and apply graphics/illustrations/text features. (These may include: ClipArt, 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
- Create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, COUNTA, TODAY, NOW, INT, IF, COUNT IF, VLOOKUP, and HLOOKUP functions). Incorporate the results of formulas/functions in other formulas/functions.
- Define and apply relative, absolute, and mixed cell references. Define and apply cell/range names.
- Apply Excel's charting features to create, edit, format, and print a variety of Excel charts
- Demonstrate mastery in linking and working with multiple worksheets and workbooks
- Review, synthesize, and apply features of Excel for organizing, linking, and working with data (These may include: searching, replacing, bookmarking, hyper linking, Go To, sorting, multiple level sorting, filtering, & data validation).
- Identify, define, assess, and apply Table features of Excel.
- Identify, define, assess, and apply Review features of Excel.
- Identify, define, assess, and apply Excel features relevant to the Microsoft Certification Exam for Excel.
- 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.

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## **Academic Vocabulary**

See attached list(s) of terms/skills. These list are updated as needed and available.

## Learning Goal 1

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Students will synthesize and apply the fundamental and advanced 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

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Review, define, and apply “electronic workbook,” “Excel,” and basic Excel terminology. Identify the primary and more advanced applications of Excel (electronic workbook)

- Review, define, and apply “electronic workbook,” “Excel,” and basic Excel terminology. Identify the primary and more advanced applications of Excel (electronic workbook)

## **Target 2**

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Review, apply, and synthesize the basic features of Excel and of the Excel screen/window.

- Review, apply, and synthesize the basic features of Excel and of the Excel screen/window.

## **Target 3**

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

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

## **Target 4**

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Review 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.)

- Review 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**

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

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

## **Target 6**

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Move/cut, copy, paste, and paste special data to other cells, worksheet, and workbooks

- Move/cut, copy, paste, and paste special data to other cells, worksheet, and workbooks

## **Target 7**

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

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## **Target 8**

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

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## **Target 9**

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Create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, COUNTA, TODAY, NOW, INT, IF, COUNT IF, VLOOKUP, and HLOOKUP functions). Incorporate the results of formulas/functions in other formulas/functions.

- Create, enter, and edit formulas and functions utilizing a variety of techniques/Excel features. (Suggestions include: SUM, AVERAGE, MAX, MIN, COUNT, COUNTA, TODAY, NOW, INT, IF, COUNT IF, VLOOKUP, and HLOOKUP functions). Incorporate the results of formulas/functions in other formulas/functions.

## **Target 10**

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

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## **Target 11**

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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**

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Demonstrate mastery in linking and working with multiple worksheets and workbooks

- Demonstrate mastery in linking and working with multiple worksheets and workbooks

## **Target 13**

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Review, synthesize, and apply features of Excel for organizing, linking, and working with data (These may

include: searching, replacing, bookmarking, hyper linking, Go To, sorting, multiple level sorting, filtering, & data validation).

- Review, synthesize, and apply features of Excel for organizing, linking, and working with data (These may include: searching, replacing, bookmarking, hyper linking, Go To, sorting, multiple level sorting, filtering, & data validation).

### **Target 14**

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Identify, define, assess, and apply Table features of Excel.

- Identify, define, assess, and apply Table features of Excel.

### **Target 15**

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Identify, define, assess, and apply Review features of Excel.

- Identify, define, assess, and apply Review features of Excel.

### **Target 16**

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Identify, define, assess, and apply Excel features relevant to the Microsoft Certification Exam for Excel.

- Identify, define, assess, and apply Excel features relevant to the Microsoft Certification Exam for Excel.

### **Target 17**

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

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### **Target 18**

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Synthesize workplace and personal needs with corresponding Excel features.



- Synthesize workplace and personal needs with corresponding Excel features.

## **Target 19**

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Analyze and troubleshoot common Excel problems.

- Analyze and troubleshoot common Excel problems.

## **Summative Assessment**

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- Applied Projects
- Applied Quiz/Test
- Optional Classroom Survey
- Optional Written Quiz/Test

## **Formative Assessment and Performance Opportunities**

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

## **Accommodations/Modifications**

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- Application problems for extra practice
- Projects/scenarios related to student personal interests incorporating this unit's content/skills/features
- Scenarios for critical thinking

## **Unit Resources**

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

- Videos

## **Interdisciplinary Connections**

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MA.K-12.5	Use appropriate tools strategically.
LA.RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
MA.S-MD.A	Calculate expected values and use them to solve problems
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.