

# Unit 05: Microsoft Access 2013

Content Area: **Template**  
Course(s):  
Time Period: **Full Year**  
Length: **FY**  
Status: **Published**

## **Standards Alignment**

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### **New Jersey Student Learning Standards**

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#### **Capacities of the Literate Individual**

#### **Students Who are College and Career Ready in Reading, Writing, Speaking, Listening, & Language**

They demonstrate independence.

They use technology and digital media strategically and capably.

### **Integration of Career Readiness, Life Literacies and Key Skills**

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CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP10	Plan education and career paths aligned to personal goals.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

### **Technology / Integration of Computer Science and Design Thinking**

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### **Interdisciplinary Connections: NJSLs for ELA, Social Studies, Science and/or Math**

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## Section

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### **Integration of Diversity, Equity and Inclusion; Climate Change; Informational and Media Literacy**

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see Crosswalks

## 21st Century Life and Careers

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### Stage I: Desired Results

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### Transfer/Overview/Rationale

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#### Transfer / Overview / Rationale

##### Unit Rationale

The purpose of this unit...

The purpose of this unit is to become proficient in Access 2013. Access lets you enter, manage, and run reports on large amounts of data. Obtaining the necessary skills for Access will enable you to become more efficient in the workplace.

## Meaning

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### Essential Questions

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Essential Questions

- What is Access?
- How do you manage large amounts of data?
- How do you create and modify a database?

- How do I work with records and tables?

## **Enduring Understanding/Indicators of Understanding**

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Enduring Understanding/Indicators of Understanding

Working with Access enables you to manage large amounts of data.

## **Acquisition (Student Learning Objectives)**

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### **Knowledge**

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Knowledge

Students will know...

1. Create and manage a database

2. How to build tables

3. How to create Queries

4. How to create forms

5. How to create reports

### **Skills**

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## Skills

Student will be skilled at ...

1. Creating new databases
2. Creating databases by using templates
3. Creating databases in older formats
4. Creating databases by using wizards
5. Editing references between tables
6. Creating and modifying relationships
7. Setting primary key fields
8. Enforcing referential integrity
9. Setting foreign keys
10. Viewing relationships
11. Navigating to specific records
12. Setting a form as the startup option
13. Using navigation forms
14. Setting navigation options
15. Changing views
16. Compacting databases
17. Repairing databases
18. Backing up databases
19. Splitting databases
20. Encrypting databases with a password
21. Merging databases
22. Recovering data from a backups
23. Printing reports
24. Printing records
25. Maintaining backward compatibility
26. Saving databases as templates
27. Saving databases to external locations
28. Exporting to alternate formats
29. Creating new tables
30. Importing external data into tables
31. Creating linked tables from external sources
32. Importing tables from other databases
33. Creating tables from templates and application parts
34. Hiding fields in tables
35. Changing data formats
36. Adding total rows
37. Adding table descriptions
38. Renaming tables
39. Updating records
40. Adding new records
41. Deleting records
42. Appending records from external data
43. Finding and replacing data
44. Sorting records
45. Filtering records
46. Grouping records
47. Adding fields to tables
48. Adding validation rules to fields
49. Changing field captions
50. Changing field sizes
51. Changing field data types
52. Configuring fields to auto-increment
53. Setting default values
54. Using input masks
55. Deleting fields
56. Running queries
57. Creating crosstab queries
58. Creating parameter queries
59. Creating action queries

60. Creating multi-table queries
61. Saving queries
62. Deleting queries
63. Renaming queries
64. Adding new fields
65. Removing fields
66. Hiding fields
67. Sorting data within queries
68. Formatting fields within queries
69. Adding calculated fields
70. Adding conditional logic
71. Grouping and summarizing data
72. Using comparison operators
73. Using basic operators
74. Creating new forms
75. Creating forms with application parts
76. Saving forms
77. Deleting forms
78. Moving form controls
79. Adding form controls
80. Modifying data sources
81. Removing form controls
82. Setting form control properties
83. Managing labels
84. Modifying tab order in forms
85. Formatting print layouts
86. Sorting records
87. Applying themes
88. Changing margins
89. Inserting backgrounds
90. Auto-ordering forms
91. Inserting headers and footers
92. Inserting images
93. Modifying existing forms
94. Creating new reports
95. Creating reports with application parts
96. Deleting reports
97. Grouping data by fields
98. Sorting data
99. Adding sub-forms
100. Adding report controls
101. Managing labels
102. Formatting reports into multiple columns
103. Adding calculated fields
104. Setting margins
105. Adding backgrounds
106. Changing report orientation
107. Changing sort order
108. Inserting headers and footers
109. Inserting images
110. Inserting page numbers
111. Applying themes
112. Multiple objectives

## **Stage 3: Learning Plan**

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### **Resource and Mentor Texts**

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Resources and Mentor Texts

[www.microsoft.com/itacademy](http://www.microsoft.com/itacademy)

### **Formative Assessment Strategies**

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Formative Assessment Strategies

Quiz- Verbal/Written

Observation

Exit ticket

### **Learning Activities/Unit of Study**

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Learning Activities/Unit of Study

Module 2: Lessons: 4,5

Lesson 4: Create blank databases

Lesson 5: Create databases by using wizards and templates

Module 5: Lessons: 13, 14

Lesson 14: Establish table relationships

Lesson 13: Identify primary and foreign keys

Lesson 14: Establish table relationships

"Module 1: Lesson 1

Module 16: Lesson 45"

Lesson 1: Explore Access 2013

Lesson 45: Simplify database use

Lesson 1: Explore Access 2013

"Module 3: Lesson 9

Module 16: Lessons: 43, 44"

Lesson 43: Maintain databases

Lesson 44: Merge and split databases

Lesson 9: Import and link tables

"Module 1: Lesson 2

Module 2: Lesson 6

Module 7: Lesson 18"

Lesson 42: Configure advanced report printing options

Lesson 2: Manage records

Lesson 6: Save databases

Lesson 18: Import and export table data

"Module 3: Lessons: 7,8,9

Module 7: Lesson 18"

Lesson 7: Create tables and add fields

Lesson 18: Import and export table data

Lesson 9: Import and link tables

Lesson 8: Create tables from application parts and other tables

"Module 3: Lesson 8

Module 4: Lesson 12

Module 7: Lesson 17"

Lesson 17: Display table data

Lesson 12: Modify field properties

Lesson 8: Create tables from application parts and other tables

"Module 1: Lessons: 2,3

Module 7: Lessons: 17,18"

Lesson 2: Manage records

Lesson 18: Import and export table data

Lesson 3: Manage table data

Lesson 17: Display table data

"Module 3: Lesson 7

Module 4: Lessons: 11,12

Module 6: Lessons: 15,16"

Lesson 7: Create tables and add fields

Lesson 16: Set advanced field properties

Lesson 12: Modify field properties

Lesson 11: Change field data types

Lesson 16: Set advanced field properties

Lesson 15: Control data entry by using field properties

Lesson 7: Create tables and add fields

"Module 8: Lessons: 19,20

Module 9: Lesson 22

Module 10: Lessons: 25,26"

Lesson 19: Run queries

Lesson 25: Present data in crosstab queries

Lesson 22: Calculate and format fields

Lesson 26: Manipulate data by using action queries

Lesson 20: Create and save queries

"Module 8: Lessons: 20,21

Module 9: Lessons: 23,24"

Lesson 21: Modify query structure

Lesson 24: Sort and group query results  
Lesson 23: Build advanced select queries  
"Module 8: Lesson 19  
Module 9: Lessons: 22,23, 24"  
Lesson 19: Run queries  
Module 11: Lessons 27,28  
Lesson 28: Create and modify forms  
Lesson 27: Display and organize form data  
"Module 11: Lesson 29  
Module 12: Lesson 30"  
Lesson 30: Move and delete form controls  
Lesson 29: Modify form controls  
Lesson 32: Edit forms  
Lesson 29: Modify form controls  
Lesson 30: Move and delete form controls  
"Module 11: Lesson 27  
Module 12: Lessons: 31,32  
Module 13: Lessons: 33,34,35"  
Lesson 31: Set tab order in forms  
Lesson 35: Prepare forms for printing  
Lesson 27: Display and organize form data  
Lesson 33: Format form controls and apply themes  
Lesson 35: Prepare forms for printing  
Lesson 34: Add images and backgrounds to forms  
Lesson 31: Set tab order in forms  
Module 14: Lesson 36  
Lesson 36: Create reports  
Module 14: Lessons: 38,39  
Lesson 38: Group and sort report data  
Lesson 39: Access data by using sub-forms

Lesson 37: Modify reports

"Module 14: Lessons: 37,38,40  
Module 15: Lessons: 41, 42"  
Lesson 42: Configure advanced report printing options  
Lesson 41: Set basic report printing options  
Lesson 40: Enhance reports by using images and themes  
Lesson 38: Group and sort report data  
Lesson 42: Configure advanced report printing options  
Lesson 40: Enhance reports by using images and themes

## **Modifications and/or Accommodations**

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### **Suggested Modifications (ELL, Sp. Ed, Gifted, At-risk of Failure)**

#### **English Language Learners**

Native language support: The teacher provides auditory or written content to students in their native language.

Adjusted Speech: The teacher changes speech patterns to increase student comprehension. This could include facing the students, paraphrasing, clearly indicating the most important ideas, and

speaking more slowly.

**Visuals:** The teacher uses graphics, pictures, visuals, and manipulatives. This helps ELL students better understand and comprehend the subjects at hand.

**Front-Loading Vocabulary:** The teacher front loads vocabulary. This means providing students with a list of important vocabulary words they will need to know for a book, lesson, etc. prior to the lesson being taught. Including pictures to go with the vocabulary words is also very beneficial for the students.

## **Special Education Students**

**Chunking:** The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

**Checking for Understanding:** It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the concepts being covered in a way that makes sense to them.

**Extra time:** The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

**Oral Reading:** The teacher will read work orally to students. Class work such as tests and literature circles may need to be read aloud to the student.

**Timers:** The teacher will use timers as an instructional tool. The use of timers is beneficial for students who have trouble completing tasks. Timers can be helpful so the student is aware of how much time they have to complete an assignment.

## **Students with 504 Plans**

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## Gifted & Talented Strategies

**Extensions/Enrichments:** Teachers will provide gifted and talented students with extension/enrichment projects. Students will be challenged to further their understanding, to apply acquired knowledge, and/or to produce something in reference to acquired knowledge.

**Modify/Change Activities:** Teachers will monitor and modify activities to accommodate those students who need to be challenged further. Additional reading, problem-solving, writing, or project work is necessary for those students who are ready to move on at a rate more accelerated than their peers. In this way, G & T students are provided the same opportunity for support as special needs students.

## Students at Risk of School Failure

**Directions or Instructions:** Make sure directions and/or instructions are given in limited numbers. Give directions/instructions verbally and in simple written format. Ask students to repeat the instructions or directions to ensure understanding occurs. Check back with the student to ensure he/she hasn't forgotten.

**Peer Support:** Peers can help build confidence in other students by assisting in peer learning. Many teachers use the 'ask 3 before me' approach. This is fine, however, a student at risk may have to have a specific student or two to ask. Set this up for the student so he/she knows who to ask for clarification before going to you.

**Alternate or Modified Assignments:** Always ask yourself, "How can I modify this assignment to ensure the students at risk are able to complete it?" Sometimes you'll simplify the task, reduce the length of the assignment or allow for a different mode of delivery. For instance, many students may hand something in, the at-risk student may jot notes and give you the information verbally. Or, it just may be that you will need to assign an alternate assignment.

**Increase One to One Time:** When other students are working, always touch base with your students at risk and find out if they're on track or needing some additional support. A few minutes here and there will go a long way to intervene as the need presents itself.

**Contracts:** It helps to have a working contract between you and your students at risk. This helps prioritize the tasks that need to be done and ensure completion happens. Each day write down what needs to be completed, as the tasks are done, provide a checkmark or happy face. The goal of using contracts is to eventually have the student come to you for completion sign-offs.

**Hands On:** As much as possible, think in concrete terms and provide hands-on tasks. This means a child doing math may require a calculator or counters. The child may need to tape record comprehension activities instead of writing them. A child may have to listen to a story being read instead of reading it him/herself.

**Tests/Assessments:** Tests can be done orally if need be. Break tests down in smaller increments by having a portion of the test in the morning, another portion after lunch and the final part the next day.

**Seating:** Seat students near a helping peer or with quick access to the teacher. Those with hearing or sight issues need to be close to the instruction which often means near the front.

