

# PLATO Course ACT WorkKeys— Comprehensive

## Course Overview

The development of PLATO Course ACT WorkKeys—Comprehensive aligns Plato Courseware with the strands and topics assessed on the ACT WorkKeys tests for Applied Mathematics, Reading for Information, Locating Information, Applied Technology, and Business Writing. The course is divided into different units, with one or more units focusing on the concepts covered in one of the WorkKeys tests mentioned above. This course compiles the concepts required for multiple ACT WorkKeys tests, such as mathematical reasoning, critical thinking, business writing, basic writing and grammar, reading for information, communication, teamwork, applied technology, etc., which are applicable in a work environment. In this course, you will find a variety of lessons and activities to improve your knowledge of these areas.

## Course Goals

By the end of this course, you will:

- Choose specific parts of a text for reading to find information.
- Understand the basic parts of a business letter.
- Find the topic and purpose of a business letter.
- Use text-aids to write pre-reading questions.
- Locate information within the text based on questions about the text.
- Prepare an action plan for replying to a business letter.
- Locate information using a table of contents, alphabetical order, glossary, and index.
- Label steps in a sequence.
- Follow directions that include a map or floor plan.
- Use a key to understand a diagram.
- Follow directions on a form.
- Find information on basic and complex forms.
- Understand the content of reports, the purpose for writing them, and how to tell if you need to read them.
- Analyze if details support a claim in a report.
- Paraphrase or summarize a report.
- Use a strategy to read reports.
- Perform addition, subtraction, multiplication, and division with 1- and 2-digit numbers.
- Write a quotient as a mixed number.
- Identify multiples of numbers.

- Solve real-life situation based problems using addition, subtraction, multiplication, and division.
- Classify proper and improper fractions.
- Rewrite improper fractions as whole or mixed numbers.
- Simplify fractions.
- Find the least common denominator in fractions.
- Compare and order fractions and decimals.
- Rewrite mixed numbers as improper fractions.
- Relate decimals, fractions, and mixed numbers.
- Perform operations with decimals.
- Rewrite a fraction as a decimal.
- Round decimal numbers.
- Solve word problems using decimals.
- Find the area of squares, rectangles, triangles, and parallelograms.
- Solve real-life-situation-based problems using ratio, proportion, and percent.
- Convert percents less than 1 and greater than 100 to decimals.
- Convert decimals and mixed numbers to percents.
- Calculate the fractional percent of a whole number.
- Convert time expression and time units.
- Convert between 12- and 24-hour clock times.
- Find time zone differences.
- Find the volume of solid shapes.
- Identify an appropriate ratio for a scale drawing.
- Perform operations with fractions and mixed numbers.
- Solve basic linear equations with one variable using inspection.
- Solve basic linear equations with one variable by isolating the variable.
- Use linear math sentences in one-variable to solve word problems.
- Transfer information from documents to business forms.
- Complete each section of a form in order.
- Write short comments on business forms.
- Write a set of directions that a reader can follow.
- Write a clear and tactful response to a business letter.
- Write actions in a business letter.
- Write letters with more than one topic.
- Write a complete agenda for a meeting.
- Take notes at a meeting.
- Write minutes for a meeting.
- Write focus statements for your report.
- Organize your ideas into sections and paragraphs.
- Write paragraphs from an outline for your report and include transitional phrases.
- Understand how nouns and pronouns agree in gender and in number.
- Identify and use prepositions and prepositional phrases.
- Use articles correctly.
- Choose verb that agrees in number with the subject of a sentence.

- Choose a pronoun that agrees with the noun to which it refers.
- Select the correct form of a pronoun based on its function in the sentence.
- Use adjectives and adverbs properly in various degrees of comparison.
- Use possessive pronouns and adjectives properly.
- Recognize and use homophones.
- Understand the three rules of spelling.
- Identify phrases and clauses in a sentence.
- Avoid using inappropriate language, such as slang, jargon, colloquialisms, and trite expressions in your writing.
- Avoid common word choice errors and determine which word is correct.
- Use figurative language correctly.
- Write effectively by eliminating wordiness, avoiding passive voice, and maintaining a consistent style.
- Correct awkward sentence structures.
- Find information in complex tables.
- Identify different kinds of charts and graphs and their parts.
- Locate information in tables, pictographs, line graphs, bar graphs, pie charts, and histograms.
- Understand characteristics of a team, team roles, and effective team participation.
- Resolve team disagreements.
- Understand the six parts of the communication process.
- Understand how context affects the communication process.
- Watch for non-verbal information to receive a complete message.
- Study and explore how energy and systems work together.
- Study and explore the working of mechanical systems, fluid systems, heat systems, and electrical systems.

## General Skills

To participate in this course, you should be able to do the following:

- Complete basic operations with word processing software, such as Microsoft Word or Google Docs.
- Complete basic operations with presentation software, such as Microsoft PowerPoint or Google Docs presentation.
- Perform online research using various search engines and library databases.
- Communicate through email.

*For a complete list of general skills that are required for participation in online courses, refer to the Prerequisites section of the Plato Student Orientation document, found at the beginning of this course.*

## **Course Materials**

- notebook
- pencils or ink pens
- computer with Internet connection and speakers or headphones
- Microsoft Word or equivalent
- Microsoft PowerPoint or equivalent

## Course Structure

### Unit 1: Reading for Information

#### Summary

Unit 1 focuses on building the essential reading skills required in a workplace environment. You will learn how to find information in a given text using a table of contents, glossary, index, and other text-aids. You will learn about different parts of a business letter and the appropriate way to respond to them. You will also learn to read forms and understand reports. You will learn to understand and follow directions in maps, floor plans, and other diagrams.

### Unit 2: Applied Mathematics

#### Summary

Unit 2 focuses on building basic mathematical skills required to solve work-related problems. You will start by learning basic operations with numbers like addition, subtraction, multiplication, and division. You will then solve story problems based on real-life situations using these operations.

### Unit 3: Intermediate Computation with Decimals, Fractions, and Percents

#### Summary

Unit 3 focuses on relatively advanced mathematical concepts related to fractions, decimals, and percents. You will learn about proper and improper fractions and convert fractions to whole and mixed numbers. You will learn to simplify fractions and use common denominators to rename fractions. You will also compare and order fractions and decimals. You will understand the relationship between fractions and decimals and convert between fraction, decimals, and mixed numbers. You will perform operations with decimals and solve real-word-situation-based problems related to decimals and fractions.

### Unit 4: Geometry and Decimals, Fractions, and Percents

#### Summary

Unit 4 focuses on higher-grade mathematical concepts like ratio and proportion, percents, and area and volume. You will understand ratios and solve real-life-situation-based word problems using ratio, proportion, and percent. You will learn to find the areas and volumes of different geometrical figures. You will understand percent values less than one and greater than one

hundred and convert them to decimals. You will also convert decimals, whole numbers, and mixed numbers to percents and find fractional percents of whole numbers. You will solve time-related problems by converting time expressions, time units, 12- and 24-hour clock systems, and finding differences between time zones. You will also learn scaling and proportion.

## Unit 5: Algebraic Concepts

### Summary

Unit 5 focuses on algebraic concepts like linear equations. You start by performing operations with fractions and mixed numbers. You then learn to solve linear equations in one variable through inspection and by isolating the variable. You also solve linear equation to represent and solve real-life-situation-based problems.

## Unit 6: Business Writing

### Summary

Unit 6 focuses on developing the essential writing skills required in a workplace environment. You will learn to fill business forms and write set of directions, which a reader can follow. You will learn to properly respond to a business letter. You will learn to prepare an agenda and write minutes for a meeting and take notes during a meeting. You will also follow the proper steps required to write a focused and organized report.

## Unit 7: Writing

### Summary

Unit 7 focuses on basic writing and grammar skills. You will look at how nouns and pronouns agree in gender and in number. You will study prepositions and learn how to identify prepositional phrases. You will look at subject-verb agreement and pronoun-antecedent agreement. You will also study the correct use of pronouns, adjectives, and adverbs. You will study punctuation and learn about spelling rules. You will review phrases and clauses and learn how to use figures of speech correctly. You will learn to improve your overall writing by avoiding inappropriate language, wordiness, common word-choice errors, and avoiding passive voice and awkward sentences.

## Unit 8: Locating Information

### Summary

Unit 8 focuses on finding information in graphic representations. You will learn to identify different types of graphs and charts. You will also learn to locate information in tables, pictographs, line graphs, bar graphs, pie charts, and histograms. You will use this information to make decisions for real-life-scenario based problems.

## Unit 9: Teamwork

### Summary

Unit 9 focuses on building teamwork. You will study characteristics of a team and understand effective team participation. You will also understand the importance of major and minor roles in a team and learn to solve team disagreements.

## Unit 10: Listening

### Summary

Unit 10 focuses on developing effective listening skills for a workplace environment. You will learn about the different parts of the communication process and understand how context affects the communication process. You will also learn to look out for non-verbal information.

## Unit 11: Applied Technology

### Summary

Unit 11 provides basic knowledge about technology, which could be applicable in a workplace. You will start by understanding energy and energy systems. You will also learn in detail how mechanical, fluid, heat, and electrical systems work.