	English/Language Arts	Mathematics	Social Studies
ACTIVITY			
Sounds Around (4)		7.2.2, 7.6.1	
Poet-Tree (5)	7.4.1, 7.5.7, 7.6.4		7.3.15
Can It Be Real? (11)	7.4.4		
Renewable Or Not? (14)			7.2.6, 7.3.11, 7.3.15, 7.4.1
Pass the Plants, Please (16)		7.6.4	
People of the Forest (17)	7.4.4, 7.5.7, 7.7.8, 7.7.10		7.2.4, 7.2.5, 7.2.7, 7.3.1, 7.3.2, 7.3.4, 7.3.5, 7.3.8, 7.3.10, 7.3.11, 7.3.12, 7.3.14, 7.3.15, 7.4.1, 7.4.2, 7.4.6, 7.5.1, 7.5.2
Adopt a Tree (21)	7.4.4	7.5.2	
Trees as Habitats (22)		7.6.1	
Forest Consequences (33)	7.2.6, 7.5.4, 7.5.7, 7.7.11		
Loving It Too Much (35)	7.2.3		
Every Drop Counts (38)		7.2.2, 7.3.1, 7.5.1, 7.7.1, 7.7.3, 7.7.4, 7.7.6, 7.7.8	
Energy Sleuths (39)			7.3.4, 7.3.5, 7.3.9, 7.3.15
Then And Now (40)	7.4.4, 7.7.1, 7.5.7, 7.7.10		
How Plants Grow (41)		7.6.1, 7.7.6	
Sunlight and Shades of Green (42)	7.5.7, 7.7.8		
Water Wonders (44)	7.5.7		
Web of Life (45)	7.4.4, 7.7.4		
Are Vacant Lots Vacant (47)		7.6.1, 7.7.6	
Field, Forest, and Stream (48)		7.5.1, 7.6.1, 7.7.6	
Tropical Treehouse (49)	7.2.2, 7.4.4		7.3.12, 7.3.13, 7.3.15

	English/Language Arts	Mathematics	Social Studies
ACTIVITY			
400-Acre Wood (50)		7.3.1, 7.5.1, 7.5.2, 7.6.4, 7.7.1, 7.7.3, 7.7.4, 7.7.6	
Make Your Own Paper (51)	7.4.4		
On The Move (53)		7.3.1, 7.5.1, 7.7.1, 7.7.4, 7.7.6	
I'd Like to Visit A Place Where… (54)	7.5.7, 7.7.1		
Planning the Ideal Community (55)	7.7.1, 7.7.11		
We Can Work It Out (56)	7.7.1		
The Ought To Be A Law (58)	7.4.4, 7.5.7		
Power Of Print (59)	7.2.1, 7.2.4, 7.4.4. 7.5.3, 7.5.4, 7.5.7, 7.7.10, 7.7.11		
Publicize It! (60)	7.4.1, 7.4.8, 7.4.9, 7.4.10, 7.5.7, 7.7.7		
How Big is Your Tree? (67)		7.3.1, 7.5.2, 7.6.1, 7.7.1	
Forest For The Trees (69)		7.7.4	
Soil Stories (70)		7.5.1, 7.6.1, 7.6.4, 7.7.5, 7.7.6	
Watch On Wetlands (71)	7.2.2, 7.4.4, 7.5.7, 7.7.10, 7.7.11		
Air We Breath (72)	7.4.4		
Waste Watchers (73)		7.3.1, 7.5.1, 7.6.1, 7.7.1, 7.7.2, 7.7.5, 7.7.6	
Tree Cookies (76)	7.4.4		
Trees In Trouble (77)	7.4.4, 7.5.7	7.5.1, 7.6.1	
Nothing Succeeds Like Succession (80)	7.4.4	7.3.1, 7.5.1, 7.6.1	
Resource-Go-Round (82)			7.3.4, 7.3.9, 7.3.12, 7.3.15, 7.4.2
Reduce, Reuse, Recycle (83)	7.4.4, 7.5.7, 7.7.11		

	English/Language Arts	Mathematics	Social Studies
ACTIVITY			
In the Driver's Seat (85)		7.3.1, 7.3.2, 7.5.1, 7.6.1, 7.7.1, 7.7.3, 7.7.4, 7.7.6, 7.7.8	
Our Changing World (86)	7.4.4, 7.7.10		7.3.2, 7.3.4, 7.3.5, 7.3.9, 7.3.15, 7.4.8
Life On The Edge (88)			7.3.14, 7.3.15, 7.4.8
Trees For Many Reasons (89)	7.3.1, 7.3.3, 7.3.4, 7.7.4		
The Native Way (90)	7.3.3, 7.3.4, 7.3.5, 7.4.4		7.1.8, 7.1.9, 7.1.21, 7.3.1, 7.3.4, 7.3.5, 7.3.8, 7.3.9, 7.3.10, 7.3.11, 7.3.12, 7.3.14, 7.3.15, 7.4.8, 7.5.1, 7.5.4, 7.5.9
In the Good Old Days (91)	7.4.4, 7.5.1, 7.5.3, 7.7.4, 7.7.8		
A Look At Lifestyles (92)	7.3.3, 7.3.4, 7.4.4, 7.5.7		
Paper Civilizations (93)			7.1.2, 7.1.10, 7.5.4, 7.5.5
Where Are The Cedars Of Lebanon? (94)			7.1.1, 7.1.2, 7.1.3, 7.1.6, 7.1.7, 7.1.8, 7.1.10, 7.1.16, 7.1.18, 7.1.19, 7.1.20, 7.1.21, 7.3.8, 7.3.9, 7.3.10, 7.3.12, 7.3.14, 7.3.15, 7.5.1, 7.5.3, 7.5.4, 7.5.9, 7.4.8
Did You Notice? (95)	7.4.4, 7.5.7		

Grade 7

Standard 2
READING: Comprehension (Focus on Informational Materials)

Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of the text by using their knowledge of text structure, organization, and purpose. The selections in the **Indiana Reading List** *(available online at www.doe.state.in.us/standards/readinglist.html) illustrate the quality and complexity of the materials to be read by students. At Grade 7, in addition to regular classroom reading, students read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts, including classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information.*

Structural Features of Informational and Technical Materials

7.2.1 Understand and analyze the differences in structure and purpose between various categories of informational materials (such as textbooks, newspapers, and instructional or technical manuals).

PLT Activities: 59

7.2.2 Locate information by using a variety of consumer and public documents.
Example: Choose a radio or watch to purchase, based on a *Consumer Reports* review of different radios or watches. Then, compare advertisements from different stores to decide which store is offering the best price.

PLT Activities: 49, 71

7.2.3 Analyze text that uses the cause-and-effect organizational pattern.
Example: Use a comparison chart, such as a T-chart, to illustrate causes and effects.

PLT Activities: 59

Expository (Informational) Critique

7.2.6 Assess the adequacy, accuracy, and appropriateness of the author's evidence to support claims and assertions, noting instances of bias and stereotyping.
Example: React to a persuasive, nonfiction text, such as a letter to the editor, by asking questions that the text leaves unanswered and challenging the author's unsupported opinions. Evaluate the accuracy and appropriateness of the evidence presented in a book, such as *Lives of the Writers* by Kathleen Krull.

PLT Activities: 33

Standard 3
READING: Literary Response and Analysis

Students read and respond to grade-level-appropriate historically or culturally significant works of literature that reflect and enhance their study of history and social science. They clarify the ideas and connect them to other literary works. The selections in the **Indiana Reading List** *(available online at www.doe.state.in.us/standards/readinglist.html) illustrate the quality and complexity of the materials to be read by students.*

Structural Features of Literature

7.3.1 Discuss the purposes and characteristics of different forms of written text, such as the short story, the novel, the novella, and the essay.
Example: Describe a short story as a piece of prose fiction usually under 10,000 words and provide an example, such as "The Night the Bed Fell" by James Thurber. Describe a novel as a prose narrative of considerable length and provide an example, such as *The Westing Game* by Ellen Raskin. Describe a novella as a short novel and provide an example, such as *The Gold Cadillac* by Mildred Taylor. Describe an essay as a short piece of writing on one subject or theme and provide an example, such as an essay by Ralph Waldo Emerson.

PLT Activities: 89

Narrative Analysis of Grade-Level-Appropriate Text

7.3.3 Analyze characterization as shown through a character's thoughts, words, speech patterns, and actions; the narrator's description; and the thoughts, words, and actions of other characters.
Example: Describe the main character in *Out of the Dust* by Karen Hesse, using examples of her thoughts, words, and actions to support this description.

PLT Activities: 89, 90, 92

7.3.4 Identify and analyze themes — such as bravery, loyalty, friendship, and loneliness — which appear in many different works.
Example: Analyze the theme of loneliness that is present throughout *The Islander* by Cynthia Rylant. Relate the theme to other works that have been read in class and for pleasure.

PLT Activities: 89, 90, 92

7.3.5 Contrast points of view — such as first person, third person, limited and omniscient, and subjective and objective — in narrative text and explain how they affect the overall theme of the work.

- First person: the narrator tells the story from the "I" perspective
- Third person: the narrator tells the story from an outside perspective
- Limited narration: the narrator does not know all thoughts of all characters
- Omniscient narration: the narrator knows all thoughts of all characters
- Subjective: the point of view involves a personal perspective
- Objective: the point of view is from a distanced, informational perspective, as in a news report

Example: Understand that the point from which the writer has chosen to tell a story affects the impact of the story on the reader. Discuss how the point of view of a book read in class affects the theme of the book, and explain how this might have been changed had the story been told from the point of view of another character or from an all-knowing narrator.

PLT Activities: 90

Standard 4
WRITING: Process

Students discuss, list, and graphically organize writing ideas. They write clear, coherent, and focused essays. Students progress through the stages of the writing process and proofread, edit, and revise writing.

Organization and Focus

7.4.1 Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.

PLT Activities: 5, 60

7.4.4 Use strategies of note-taking, outlining, and summarizing to impose structure on composition drafts.

PLT Activities: 11, 17, 21, 40, 45, 49, 51, 58, 59, 71, 72, 76, 77, 80, 83, 86, 90, 91, 92, 95

Evaluation and Revision

7.4.8 Review, evaluate, and revise writing for meaning and clarity.

PLT Activities: 60

7.4.9 Edit and proofread one's own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of frequent errors.

PLT Activities: 60

7.4.10 Revise writing to improve organization and word choice after checking the logic of the ideas and the precision of the vocabulary.

PLT Activities: 60

Standard 5
WRITING: Applications (Different Types of Writing and Their Characteristics)

At Grade 7, students continue to write narrative (story), expository (informational), persuasive, and descriptive texts (of at least 500 to 700 words). Students are introduced to biographical and autobiographical narratives and to writing summaries of grade-level-appropriate reading materials.

The writing demonstrates a command of Standard English and the research, organizational, and drafting strategies outlined in Standard 4 — Writing Process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.

In addition to producing the different writing forms introduced in earlier grades, such as letters, Grade 7 students use the writing strategies outlined in Standard 4 — Writing Process to:

7.5.1 Write biographical or autobiographical narratives (stories) that:

- develop a standard plot line — including a beginning, conflict, rising action, climax, and denouement (resolution) — and point of view.
- develop complex major and minor characters and a definite setting.
- use a range of appropriate strategies, such as dialogue; suspense; and the naming of specific narrative action, including movement, gestures, and expressions.

Example: Write successive drafts of a two- or three-page humorous story about *Something Fishy Is Cooking in the Kitchen*, including an engaging opening; dialogue between characters; and descriptive details about the setting, plot, and characters.

PLT Activities: 91

7.5.3 Write research reports that:

- pose relevant and focused questions about the topic.
- communicate clear and accurate perspectives on the subject.
- include evidence and supporting details compiled through the formal research process, including use of a card catalog, *Reader's Guide to Periodical Literature*, a computer catalog, magazines, newspapers, dictionaries, and other reference books.
- document sources with reference notes and a bibliography.

Example: Write a research report on the impact that television has had on American society. Take a position on the topic, whether positive or negative, and support this view by citing a variety of reference sources. Prepare a report on a man or woman who contributed significantly to science and technology, such as Marie Curie (medicine), Alexander Graham Bell (telephone), Thomas Edison (electricity), Nikola Tesla (electrical engineering), or Rosalyn Yalow (medicine).

PLT Activities: 59, 91

7.5.4 Write persuasive compositions that:

- state a clear position or perspective in support of a proposition or proposal.
- describe the points in support of the proposition, employing well-articulated evidence and effective emotional appeals.
- anticipate and address reader concerns and counterarguments.

Example: In preparation for an upcoming student council election, choose a candidate and write speeches and make posters that will make this candidate especially appealing to the other students (the voters).

PLT Activities: 33, 59

7.5.7 Write for different purposes and to a specific audience or person, adjusting style and tone as necessary.
Example: Write a letter inviting a local artist to visit the classroom to talk and demonstrate certain skills. Use words and phrases that demonstrate a serious interest in what the speaker would have to say.

PLT Activities: 5, 17, 33, 40, 42, 44, 54, 58, 59, 60, 71, 77, 83, 92, 95

Standard 6
WRITING: English Language Conventions

Students write using Standard English conventions appropriate to the grade level.

Grammar

7.6.4 Identify all parts of speech (verbs, nouns, pronouns, adjectives, adverbs, prepositions, conjunctions, and interjections) and types and structure of sentences.

PLT Activities: 5

Standard 7
LISTENING AND SPEAKING: Skills, Strategies, and Applications

Deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. Students evaluate the content of oral communication. Students deliver well-organized formal presentations using traditional speech strategies, including narration, exposition, persuasion, and description. Students use the same Standard English conventions for oral speech that they use in their writing.

Comprehension

7.7.1 Ask questions to elicit information, including evidence to support the speaker's claims and conclusions.

PLT Activities: 40, 54, 55, 56

Organization and Delivery of Oral Communication

7.7.4 Arrange supporting details, reasons, descriptions, and examples effectively.

PLT Activities: 45, 89, 91

Analysis and Evaluation of Oral and Media Communications

7.7.7 Analyze the effect on the viewer of images, text, and sound in electronic journalism; identify the techniques used to achieve the effects.

PLT Activities: 60

Speaking Applications

7.7.8 Deliver narrative (story) presentations that:

- establish a context, standard plot line (with a beginning, conflict, rising action, climax, and resolution of the conflict), and point of view.
- describe major and minor characters and a definite setting.
- use a range of appropriate strategies to make the story engaging to the audience, including using dialogue and suspense and showing narrative action with movement, gestures, and expressions.

PLT Activities: 17, 42, 91

7.7.10 Deliver research presentations that:

- pose relevant and concise questions about the topic.
- provide accurate information on the topic.
- include evidence generated through the formal research process, including the use of a card catalog, *Reader's Guide to Periodical Literature*, computer databases, magazines, newspapers, and dictionaries.
- cite reference sources appropriately.

PLT Activities: 17, 40, 59, 71, 86

7.7.11 Deliver persuasive presentations that:

- state a clear position in support of an argument or proposal.
- describe the points in support of the proposal and include supporting evidence.

PLT Activities: 55, 56, 59, 71, 83

Grade 7

In this technological age, mathematics is more important than ever. When students leave school, they are more and more likely to use mathematics in their work and everyday lives — operating computer equipment, planning timelines and schedules, reading and interpreting data, comparing prices, managing personal finances, and completing other problem-solving tasks. What they learn in mathematics and how they learn it will provide an excellent preparation for a challenging and ever-changing future.

The state of Indiana has established the following mathematics standards to make clear to teachers, students, and parents what knowledge, understanding, and skills students should acquire in Grade 7:

Standard 1 — Number Sense

Understanding the number system is the basis of mathematics. Students extend this understanding to include irrational numbers, such as π and the square root of 2. They compare and order rational and irrational numbers and convert terminating decimals into fractions. They also use exponents to write whole numbers in scientific notation and to write the prime factorizations of numbers.

Standard 2 — Computation

Fluency in computation is essential. Students add, subtract, multiply, and divide integers, fractions, and decimals. They solve problems using percentages, including calculating discounts, markups, and commissions. They use mental arithmetic to compute with simple fractions, decimals, and powers.

Standard 3 — Algebra and Functions

Algebra is a language of patterns, rules, and symbols. Students at this level use variables and other symbols to translate verbal descriptions into equations and formulas. They write and solve linear equations and inequalities, and write and use formulas to solve problems. They also use properties of the rational numbers to evaluate and simplify algebraic expressions, and they further extend their understanding of graphs by investigating rates of change for linear and nonlinear functions and by developing and using the concept of the slope of a straight line.

Standard 4 — Geometry

Students learn about geometric shapes and develop a sense of space. They link geometry to coordinate graphs, using them to plot shapes, calculate lengths and areas, and find images under transformations. They understand the Pythagorean Theorem and use it to find lengths in right triangles. They also construct nets (two-dimensional patterns) for three-dimensional objects, such as prisms, pyramids, cylinders, and cones.

Standard 5 — Measurement

The study of measurement is essential because of its uses in many aspects of everyday life. Students measure in order to compare lengths, areas, volumes, weights, times, temperatures, etc. They develop the concept of similarity and use it to make scale drawings and scale models and to solve problems relating to these drawings and models. They find areas and perimeters of two-dimensional shapes and volumes and surface areas of three-dimensional shapes, including irregular shapes made up of more basic shapes.

Standard 6 — Data Analysis and Probability

Data are all around us — in newspapers and magazines, in television news and commercials, in quality control for manufacturing — and students need to learn how to understand data. At this level, they learn

how to display data in bar, line, and circle graphs and in stem-and-leaf plots. They analyze data displays to find whether they are misleading and analyze the wording of survey questions to tell whether these could influence the results. They find the probability of disjoint events. They also find the number of arrangements of objects using a tree diagram.

Standard 7 — Problem Solving

In a general sense, mathematics is problem solving. In all mathematics, students use problem-solving skills: they choose how to approach a problem, they explain their reasoning, and they check their results. As they develop their skills with irrational numbers, analyzing graphs, or finding surface areas, for example, students move from simple ideas to more complex ones by taking logical steps that build a better understanding of mathematics.

As part of their instruction and assessment, students should also develop the following learning skills by Grade 12 that are woven throughout the mathematics standards:

Communication

The ability to read, write, listen, ask questions, think, and communicate about math will develop and deepen students' understanding of mathematical concepts. Students should read text, data, tables, and graphs with comprehension and understanding. Their writing should be detailed and coherent, and they should use correct mathematical vocabulary. Students should write to explain answers, justify mathematical reasoning, and describe problem-solving strategies.

Reasoning and Proof

Mathematics is developed by using known ideas and concepts to develop others. Repeated addition becomes multiplication. Multiplication of numbers less than ten can be extended to numbers less than one hundred and then to the entire number system. Knowing how to find the area of a right triangle extends to all right triangles. Extending patterns, finding even numbers, developing formulas, and proving the Pythagorean Theorem are all examples of mathematical reasoning. Students should learn to observe, generalize, make assumptions from known information, and test their assumptions.

Representation

The language of mathematics is expressed in words, symbols, formulas, equations, graphs, and data displays. The concept of one-fourth may be described as a quarter, $\frac{1}{4}$, one divided by four, 0.25, $\frac{1}{8} + \frac{1}{8}$, 25 percent, or an appropriately shaded portion of a pie graph. Higher-level mathematics involves the use of more powerful representations: exponents, logarithms, π, unknowns, statistical representation, algebraic and geometric expressions. Mathematical operations are expressed as representations: +, =, divide, square. Representations are dynamic tools for solving problems and communicating and expressing mathematical ideas and concepts.

Connections

Connecting mathematical concepts includes linking new ideas to related ideas learned previously, helping students to see mathematics as a unified body of knowledge whose concepts build upon each other. Major emphasis should be given to ideas and concepts across mathematical content areas that help students see that mathematics is a web of closely connected ideas (algebra, geometry, the entire number system). Mathematics is also the common language of many other disciplines (science, technology, finance, social science, geography) and students should learn mathematical concepts used in those disciplines. Finally, students should connect their mathematical learning to appropriate real-world contexts.

Standard 2
Computation

Students solve problems involving integers, fractions, decimals, ratios, and percentages.*

7.2.2 Calculate the percentage increase and decrease of a quantity.
Example: The population of a country was 36 million in 1990 and it rose to 41.4 million during the 1990s. What was the percentage increase in the population?

PLT Activities: 4, 38

* integers: …, -3, -2, -1, 0, 1, 2, 3, …

Standard 3
Algebra and Functions

Students express quantitative relationships using algebraic terminology, expressions, equations, inequalities, and graphs.

7.3.1 Use variables and appropriate operations to write an expression, a formula, an equation, or an inequality that represents a verbal description.
Example: Write in symbols the inequality: 5 less than twice the number is greater than 42.

PLT Activities: 38, 50, 53, 67, 73, 80, 85

7.3.2 Write and solve two-step linear equations and inequalities in one variable and check the answers.
Example: Solve the equation $4x - 7 = 12$ and check your answer in the original equation.

PLT Activities: 85

Standard 5
Measurement

Students compare units of measure and use similarity to solve problems. They compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less regular objects.*

7.5.1 Compare lengths, areas, volumes, weights, capacities, times, and temperatures within measurement systems.
Example: The area of the school field is 3 acres. How many square yards is that? Explain your method.

PLT Activities: 38, 48, 50, 53, 70, 73, 77, 80, 85

7.5.2 Use experimentation and modeling to visualize similarity problems. Solve problems using similarity.
Example: At a certain time, the shadow of your school building is 36 feet long. At the same time, the shadow of a yardstick held vertically is 4 feet long. How high is the school building?

PLT Activities: 21, 50, 67

* similar: the term to describe figures that have the same shape but may not have the same size

Standard 6
Data Analysis and Probability

Students collect, organize, and represent data sets and identify relationships among variables within a data set. They determine probabilities and use them to make predictions about events.

7.6.1 Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots* and justify the choice of display.
Example: You survey the students in your school to find which of three designs for a magazine cover they prefer. To display the results, which would be more appropriate: a bar chart or a circle graph? Explain your answer.

PLT Activities: 4, 22, 41, 47, 48, 67, 70, 73, 77, 80, 85

7.6.4 Analyze data displays, including ways that they can be misleading. Analyze ways in which the wording of questions can influence survey results.
Example: On a bar graph of a company's sales, it appears that sales have more than doubled since last year. Then you notice that the vertical axis starts at $5 million and can see that sales have in fact increased from $5.5 million to $6.2 million.

PLT Activities: 16, 50, 70

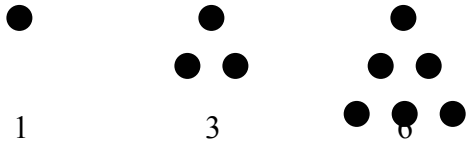
* stem-and-leaf plot: e.g., this one shows 62, 63, 67, 71, 75, 75, 76, etc.

Stem	Leaf
6	2 3 7
7	1 5 5 6 8 9
8	0 1 1 2 3 5 5 7 8 8
9	1 2 2 3 3 4

Standard 7
Problem Solving

Students make decisions about how to approach problems and communicate their ideas.

7.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
Example: Solve the problem: "The first three triangular numbers are shown in the diagram below. Find an expression to calculate the *n*th triangular number."



Decide to look for patterns.
PLT Activities: 38, 50, 53, 67, 73, 85

7.7.2 Make and justify mathematical conjectures based on a general description of a mathematical question or problem.
Example: In the first example, notice that three dots make an equilateral triangle for the number 3 and six dots make the next equilateral triangle.

PLT Activities: 73

7.7.3 Decide when and how to divide a problem into simpler parts.
Example: In the first example, decide to make a diagram for the fourth and fifth triangular numbers.

PLT Activities: 38, 50, 85

Students use strategies, skills, and concepts in finding and communicating solutions to problems.

7.7.4 Apply strategies and results from simpler problems to solve more complex problems.
Example: In the first example, list the differences between any two triangular numbers.

PLT Activities: 38, 50, 53, 69, 85

7.7.5 Make and test conjectures by using inductive reasoning.
Example: In the first example, predict the difference between the fifth and sixth numbers and use this to predict the sixth triangular number. Make a diagram to test your conjecture.

PLT Activities: 70, 73

7.7.6 Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.
Example: In the first example, use words, numbers, and tables to summarize your work with triangular numbers.

PLT Activities: 38, 41, 47, 48, 50, 53, 70, 73, 85

7.7.8 Select and apply appropriate methods for estimating results of rational-number computations.
Example: Measure the dimensions of a swimming pool to find its volume. Estimate an answer by working with an average depth.

PLT Activities: 38, 85

GRADE 7

Peoples, Places, And Cultures in Africa, Asia, and the Southwest Pacific

Students in Grade 7 study the regions and nations of Africa, Asia, and the Southwest Pacific, including historical, geographical, economic, political, and cultural relationships. This study includes the following regions: Africa, Southwest and Central Asia, South Asia, Southeast Asia, East Asia, and the Southwest Pacific (Australia, New Zealand, and Oceania).

The Indiana's K – 8 academic standards for social studies are organized around five content areas. The content area standards and the types of learning experiences they provide to students in Grade 7 are described below. On the pages that follow, age-appropriate concepts are listed underneath each standard. Skills for thinking, inquiry, and participation in a democratic society are integrated throughout. Specific terms are defined and examples are provided when necessary.

Standard 1 — History
Students will examine the major movements, events, and figures that contributed to the development of nations in modern Africa, Asia, and the Southwest Pacific from ancient civilizations to early modern times.

Standard 2 — Civics and Government
Students will trace the historic development of different forms of government and compare various contemporary governments in Africa, Asia, and the Southwest Pacific.

Standard 3 — Geography
Students will explain how Earth/sun relationships affect the atmospheric and oceanic circulation systems, the seasons, and climate, and explain global time zones and their relation to longitude. They will identify and categorize the major geographic characteristics and regions of Africa, Asia, and the Southwest Pacific. They will also name and locate major physical features, countries, and major cities, and use geographic skills and technology to examine geographic relationships within and between these regions and the rest of the world.

Standard 4 — Economics
Students will examine the influence of physical and cultural factors upon the economic systems found in countries of Africa, Asia, and the Southwest Pacific.

Standard 5 — Individuals, Society, and Culture
Students will examine the role of individuals and groups in societies of Africa, Asia, and the Southwest Pacific, identify connections among cultures, and trace the influence of cultures of the past on present societies. They will also analyze patterns of change, including the impact of scientific and technological innovations and examine the role of artistic expression in selected cultures.

Standard 1
History

Students will examine the major movements, events, and figures that contributed to the development of nations in modern Africa, Asia, and the Southwest Pacific from ancient civilizations to early modern times.

Historical Knowledge

7.1.1 Explain the rise of early civilizations in the river valleys of the Tigris and Euphrates in Mesopotamia and along the Nile in Northeastern Africa, including Egypt and Kush.

PLT Activities: 94

7.1.2 Describe the achievements of ancient Egypt in art, architecture, religion, and government and the development of the concept of theocracy*.

PLT Activities: 93, 94

7.1.3 Compare the early civilizations of the Indus River Valley in South Asia with the Huang-He of China.

PLT Activities: 94

7.1.6 Describe the extent and influence of Muslim civilization, including political organization, the growth of cities, the development of trans-Saharan and other trade routes, and scientific and cultural contributions to other cultures of the time.

PLT Activities: 94

7.1.7 Describe the development of sub-Saharan civilizations in Africa, including the kingdoms of Ghana, Mali, and Songhai, and the importance of historic political and trading centers, such as Timbuktu.

PLT Activities: 94

7.1.8 Describe developments in agriculture, technology, and commerce during the Tang and Song Dynasties in China.

PLT Activities: 90, 94

7.1.9 Explain how Mongol rulers of China extended the Empire and both adapted to and changed Chinese culture.

PLT Activities: 90

7.1.10 Describe advances in Chinese society under the Ming Dynasty, including agriculture, art, architecture, navigation, and public administration through the scholar-official class.

PLT Activities: 93, 94

* theocracy: government by priests or a monarch presumed to be divine

Chronological Thinking, Comprehension, Analysis, and Interpretation

7.1.16 Recognize the interconnection of historical people, places, events, and developments that have taken place in civilizations of Africa, Asia, and the Southwest Pacific.

PLT Activities: 94

7.1.18 Analyze cause-and-effect relationships, bearing in mind multiple causation, including the importance of individuals, ideas, human interests, beliefs, and chance in history.

PLT Activities: 94

7.1.19 Analyze multiple perspectives on a current event relating to Africa, Asia, or the Southwest Pacific. Read and examine more than one account of the event and distinguish between statements of opinion and statements of fact.

PLT Activities: 94

Research Capabilities

7.1.20 Form and respond to historical questions and use a variety of information resources* to find and evaluate historical data on the people, places, events, and developments that have played a part in the history of Africa, Asia, and the Southwest Pacific.

PLT Activities: 94

* information resources: print media, such as books, magazines, and newspapers; electronic media, such as radio, television, Web sites, and databases; and community resources, such as individuals and organizations

Issues-Analysis, Decision-Making, Planning, and Problem Solving

7.1.21 Identify and evaluate solutions and alternative courses of action chosen by people to resolve problems confronting people in Africa, Asia, and the Southwest Pacific. Consider the information available, interests of those affected by the decision, and consequences of each course of action.

PLT Activities: 90, 94

Standard 2
Civics and Government

Students will trace the historic development of different forms of government and compare various contemporary governments in Africa, Asia, and the Southwest Pacific.

Functions of Government

7.2.4 Identify different forms of government in Africa, Asia, and the Southwest Pacific, which include examples of limited/unlimited government.
Example: Representative democracy, parliamentary democracy, republic, dictatorship, monarchy.

PLT Activities: 17

Roles of Citizens

7.2.5 Define and compare citizenship and the citizen's role in selected countries of Africa, Asia, and the Southwest Pacific.
Example: Compare methods of voting, participation in voluntary organizations of civil society, and participation in government.

PLT Activities: 17

International Relations

7.2.6 Explain how African, Asian, and Southwest Pacific nations interact with each other.
Example: Trade, diplomacy, treaties and agreements, humanitarian aid, economic incentives and sanctions, and the threat and use of military force.

PLT Activities: 14

7.2.7 Describe different sources of authority and power of government in African, Asian, and Southwest Pacific countries.
Example: Tradition, religion, force, constitution, consent of the governed.

PLT Activities: 17

Standard 3
Geography

Students will explain how Earth/sun relationships affect the atmospheric and oceanic circulation systems, the seasons, and climate, and explain global time zones and their relation to longitude. They will identify and categorize the major geographic characteristics and regions of Africa, Asia, and the Southwest Pacific. They will also name and locate major physical features, countries, and major cities, and use geographic skills and technology to examine geographic relationships within and between these regions and the rest of the world.

The World in Spatial Terms

7.3.1 Explain the role of Earth/sun relationships in influencing the climate and ecosystems of Asia, Africa, and the Southwest Pacific.

PLT Activities: 17, 90

7.3.2 Use different map projections and compare the way they represent the Eastern Hemisphere.

PLT Activities: 17, 86

Places and Regions

7.3.4 Name and locate major regions, mountain ranges, river systems, countries, and cities in Africa, Asia, and the Southwest Pacific.

PLT Activities: 17, 39, 82, 86, 90

7.3.5 Identify and compare physical and cultural sub-regions of Africa, Asia, and the Southwest Pacific.

PLT Activities: 17, 39, 86, 90

Physical Systems

7.3.8 Identify and explain the distribution of ecosystems in Africa, Asia, and the Southwest Pacific in terms of climate and land form patterns.

PLT Activities: 17, 90, 94

7.3.9 Explain why specific areas of Africa, Asia, and the Southwest Pacific have major petroleum and mineral deposits and describe the physical processes that resulted in deposits in these locations.
Example: The central plateau of Africa has a large part of the world's industrial minerals, such as copper, cobalt, and diamonds.

PLT Activities: 39, 82, 86, 90, 94

7.3.10 Describe the restrictions that climate and land forms place on land use in regions of Africa, Asia, and the Southwest Pacific, and be able to discern how patterns of population distribution reflect these restrictions.

PLT Activities: 17, 90, 94

Human Systems

7.3.11 Give reasons why rates of population growth and life expectancy vary among countries in Africa, Asia, and the Southwest Pacific.

PLT Activities: 14, 17, 90

7.3.12 Investigate how physical geography, productive resources, specialization, and trade have influenced the way people earn income in Africa, Asia, and the Southwest Pacific.

PLT Activities: 17, 49, 82, 90, 94

7.3.13 Use maps, charts, and graphs to compare rural and urban populations in selected countries.

PLT Activities: 49

Environment and Society

7.3.14 Analyze historical maps and give examples of how land and water forms, climate, and natural vegetation have influenced historical trends and developments in Asia, Africa, and the Southwest Pacific.

PLT Activities: 17, 88, 90, 94

7.3.15 Use a variety of information resources* to identify current issues related to natural resources in selected countries in Africa, Asia, and the Southwest Pacific, and examine contrasting perspectives on these issues.

PLT Activities: 5, 14, 17, 39, 49, 82, 86, 88, 90, 94

* information resources: print media, such as books, magazines, and newspapers; electronic media, such as radio, television, Web sites, and databases; and community resources, such as individuals and organizations

Standard 4
Economics

Students will examine the influence of physical and cultural factors upon the economic systems found in countries of Africa, Asia, and the Southwest Pacific.

7.4.1 Give examples of trade between countries in Africa, Asia, and the Southwest Pacific. Explain how voluntary trade benefits countries and results in higher standards of living.
Example: Voluntary trade results in increased production, increased consumption of goods and services, and lower prices for consumers.

PLT Activities: 14, 17

7.4.2 Identify economic connections between the local community and the countries of Africa, Asia, or the Southwest Pacific.

PLT Activities: 17, 82

7.4.6 Compare and contrast the standard of living of various countries in Africa, Asia, and the Southwest Pacific using Gross Domestic Product (GDP)* per capita as an indicator.

PLT Activities: 17

7.4.8 Identify situations in which the actions of consumers and producers in Asia, Africa, and the Southwest Pacific are helpful "spillovers" or harmful "spillovers" to people inside and outside a country who are not directly involved in the consumption or production of a product.
Example: A helpful "spillover" might be education. We all are better off if we have an educated workforce. A harmful "spillover" might be air or water pollution from production of a product. Even those who do not consume the product are hurt by pollution.

PLT Activities: 86, 88, 90, 94

* Gross Domestic Product (GDP): the value of all final goods and services produced in a country in a year

Standard 5
Individuals, Society, and Culture

Students will examine the role of individuals and groups in societies of Africa, Asia, and the Southwest Pacific, identify connections among cultures, and trace the influence of cultures of the past on present societies. They will also analyze patterns of change, including the impact of scientific and technological innovations and examine the role of artistic expression in selected cultures.

7.5.1 Compare and contrast how social institutions, including the family, religion, education, government, and the economic system, influence individual behavior in different societies in Africa, Asia, and the Southwest Pacific in the past and present.
Example: Compare ideas regarding individual responsibility in Confucianism and Buddhism, or compare the role of the individual in family life in selected cultures.

PLT Activities: 17, 90, 94

7.5.2 Explain the term social status*; describe how this concept helped to determine individual roles in African, Asian, and Southwest Pacific societies in the past; and compare with ideas about social status today.
Example: Identify the various levels of society in ancient Egypt, and compare them with levels of Egyptian society today.

PLT Activities: 17

7.5.3 Give examples of specific changes in societies in Africa, Asia, and the Southwest Pacific as a result of cultural diffusion* in the past and present.
Example: Trace the spread of Islam to areas of Africa and Asia during the Middle Ages or the spread of European languages to the Southwest Pacific and parts of Asia and Africa during the period of European exploration and colonization.

PLT Activities: 94

7.5.4 Examine the impact of cultural change brought about by technological inventions and innovations in the past and present.
Example: Trace the technology of papermaking from its origins in China in about 100 C.E., to its spread to the Middle East, Africa, and Europe in the Middle Ages, and speculate about its possible impact.

PLT Activities: 90, 93, 94

7.5.5 Trace steps in the development of written language, including the evolution of Sumerian cuneiform, Egyptian hieroglyphics, and Chinese calligraphy.

PLT Activities: 93

7.5.9 Give examples of the benefits of connections among cultures, such as developing opportunities for trade, cooperating in seeking solutions to mutual problems, learning from technological advances, acquiring new perspectives, and benefiting from developments in architecture, music, and the arts.

PLT Activities: 90, 94

* social status: the position a person has in a society
* cultural diffusion: the spread of ideas from one culture to another