

	English/Language Arts	Mathematics	Social Studies
ACTIVITY			
The Shape of Things (1)	K.1.20, K.7.1, K.7.2, K.7.3	K.1.9, K.3.1, K.4.1	
Get In Touch With Trees (2)	K.5.1, K.7.1, K.7.2, K.7.3		
Peppermint Beetle (3)			K.3.1
Sounds Around (4)	K.2.5	K.1.9, K.5.1	K.3.1
Picture This! (6)		K.1.2, K.1.3, K.1.8, K.1.9, K.3.1, K.4.3, K.5.1	
Pass the Plants, Please (16)			K.3.3, K.3.5
Tale of the Sun (18)	K.4.3, K.7.2		K.3.6, K.5.1
Environment Exchange Box (20)			K.1.2, K.3.3, K.3.4, K.3.6, K.5.1, K.5.4
Adopt a Tree (21)		K.1.8, K.4.3, K.5.1	K.3.1, K.4.1
Trees as Habitats (22)			K.3.4
Bird and Worms (25)		K.1.1, K.1.2, K.1.3, K.1.6, K.1.8, K.1.9, K.2.1, K.3.1, K.4.3	
Every Tree for Itself (27)		K.1.1, K.1.2, K.1.6, K.1.8, K.1.9, K.5.2	
Pollution Search (36)			K.3.6
How Plants Grow (41)		K.1.5, K.1.8, K.1.9, K.5.1, K.5.2	
School Yard Safari (46)	K.5.1, K.7.2, K.7.3		
Are Vacant Lots Vacant (47)		K.1.8, K.4.3	
Tropical Treehouse (49)	K.7.2		
On The Move (53)			K.5.1
I'd Like to Visit A Place Where... (54)	K.1.5, K.1.6, K.1.11, K.1.14		K.3.3
The Closer You Look (61)	K.5.1, K.7.2, K.7.3		

	English/Language Arts	Mathematics	Social Studies
ACTIVITY			
How Big is Your Tree? (67)		K.1.8, K.1.9, K.4.2, K.5.1	
People, Places, Things (74)			K.3.1, K.3.3, K.3.6, K.4.2, K.5.2
Signs of Fall (78)	K.7.2, K.7.3		
Tree Life Cycle (79)	K.7.2		
Earth Manners (87)	K.5.1, K.7.2		K.2.5, K.3.6
Did You Notice? (95)	K.7.2, K.7.5		K.1.1, K.1.2, K.1.4

Kindergarten

Standard 1

READING: Word Recognition, Fluency, and Vocabulary Development

Students know about letters, words, and sounds. They apply this knowledge to read simple sentences.

Concepts About Print

K.1.5 Distinguish letters from words.

PLT Activities: 54

K.1.6 Recognize and name all capital and lowercase letters of the alphabet.

PLT Activities: 54

*Phonemic Awareness**

K.1.11 Listen to one-syllable words and tell the beginning or ending sounds.
Example: Tell what sound you hear at the beginning of the word *girl*.

PLT Activities: 54

* When letters have a slanted line before and after them, such as /f/, /sh/, /b/, this represents the sound the letter makes, not the name of the letter.

Decoding and Word Recognition

K.1.14 Match all consonant sounds (mad, red, pin, top, sun) to appropriate letters.

PLT Activities: 54

Vocabulary and Concept Development

K.1.20 Identify and sort common words in basic categories.

Example: Tell whether the words *blue*, *yellow*, and *red* are colors, shapes, or foods. Tell the names of some favorite colors.

PLT Activities: 1

Standard 2

READING: Comprehension

*Students identify the basic facts and ideas in what they have read, heard, or seen. They use comprehension strategies, such as generating and responding to questions and comparing new information to what is already known, to understand what they read. 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. In Kindergarten, students will listen to and begin*

to read grade-level-appropriate classic and contemporary literature, nursery rhymes, alphabet books, dictionaries, and online information.

Comprehension and Analysis of Grade-Level-Appropriate Text

- K.2.5 Identify and summarize the main ideas and plot of a story.
Example: Listen to a folktale, such as the version of *The Little Red Hen* by Paul Galdone or *The Three Billy Goats Gruff* by Tim Arnold. Then, discuss with the class the main events of the story and the characters in the story. After listening to an information story that is read aloud, such as *Bears, Bears, and More Bears* by Jackie Morris, tell about the main ideas that were learned.

PLT Activities: 4

Standard 4 **WRITING: Process**

Students discuss ideas and tell stories for someone to write. Students use pictures, letters, and words to write.

Organization and Focus

- K.4.3 Write using pictures, letters, and words.

PLT Activities: 18

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

In Kindergarten, students begin to write and draw pictures for specific purposes and for a specific audience (intended reader).

- K.5.1 Draw pictures and write words for a specific reason.
Example: Draw a picture or write to a friend or a family member to tell about something new at school.

PLT Activities: 2, 46, 61, 87

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

Students listen and respond to oral communication. They speak in clear and coherent sentences. Students deliver brief oral presentations about familiar experiences or interests.

Comprehension

- K.7.1 Understand and follow one- and two-step spoken directions.

PLT Activities: 1, 2

Oral Communication

K.7.2 Share information and ideas, speaking in complete, coherent sentences.

PLT Activities: 1, 2, 18, 46, 49, 61, 78, 79, 87, 95

Speaking Applications

K.7.3 Describe people, places, things (including their size, color, and shape), locations, and actions.

PLT Activities: 1, 2, 46, 61, 78

K.7.5 Tell an experience or creative story in a logical sequence.

PLT Activities: 95

Kindergarten

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 Kindergarten:

Standard 1 — Number Sense

Understanding the number system is the basis of mathematics. Students develop this understanding by first comparing the number of objects (such as blocks) in a given set. From comparing sets of objects, they develop the concept of counting: matching each object in a set with a counting number. Then they use counting to recognize, name, and order up to ten objects. As preparation for learning about fractions, students practice dividing sets into equal groups and shapes into equal parts.

Standard 2 — Computation

Fluency in computation is essential. As students learn about numbers, they also learn how to add and subtract them. They use objects to join sets together (for addition) and to remove objects from sets (for subtraction).

Standard 3 — Algebra and Functions

Algebra is a language of patterns, rules, and symbols. Students at this level sort and classify objects according to various rules and make simple patterns with numbers and shapes.

Standard 4 — Geometry

Students learn about geometric shapes and develop a sense of space. They identify and describe simple shapes, comparing and sorting them by such attributes as size and roundness. They learn the meaning of words, like inside and above, that relate to positions in space.

Standard 5 — Measurement

The study of measurement is essential because of its uses in many aspects of everyday life. Students begin their study of measurement by comparing objects' length, weight, temperature, etc. They use words like shorter, taller, heavier, and colder. They also learn concepts of time, such as hours, days, months, and years.

Standard 6 — 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 numbers, geometry, or measurement, for example, students at this level 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 1

Number Sense

Students understand the relationship between numbers and quantities up to 10, and that a set of objects has the same number in all situations regardless of the position or arrangement of the objects.*

K.1.1 Match sets of objects one-to-one.

Example: Take crayons from the box and give one to each student in the group. Explain what you are doing.

PLT Activities: 25, 27

- K.1.2 Compare sets of up to ten objects and identify whether one set is equal to, more than, or less than another.
Example: Compare the blocks in two boxes. Tell which box contains more blocks and explain the way in which you decided on your answer.
PLT Activities: 6, 25, 27
- K.1.3 Know that larger numbers describe sets with more objects in them than sets described by smaller numbers.
Example: Understand that a set of 7 apples contains more apples than a set of 3 apples.
PLT Activities: 6, 25
- K.1.5 Divide shapes into equal parts.
Example: Divide a piece of paper into 4 equal pieces.
PLT Activities: 41
- K.1.6 Count, recognize, represent, name, and order a number of objects (up to 10).
Example: Count a group of seven pennies. Recognize that 7 is the number for this set.
PLT Activities: 25, 27
- K.1.8 Use correctly the words *one/many, none/some/all, more/less, and most/least*.
Example: Take some of the blocks out of this box, but not all of them.
PLT Activities: 6, 22, 25, 27, 41, 47, 67
- K.1.9 Record and organize information using objects and pictures.
Example: Ask some of your friends what pets they have. Use pictures of animals to show the number of pets your friends have.
PLT Activities: 1, 4, 6, 25, 27, 41, 67

* set: a collection of objects, numbers, etc.

Standard 2 Computation

Students understand and describe simple additions and subtractions.

- K.2.1 Model addition by joining sets of objects (for any two sets with fewer than 10 objects when joined).
Example: Put together 3 pencils and 2 pencils. Count the total number of pencils.
PLT Activities: 25

Standard 3

Algebra and Functions

Students sort and classify objects.

- K.3.1 Identify, sort, and classify objects by size, number, and other attributes. Identify objects that do not belong to a particular group.
Example: Find the squares in a collection of shapes. Sort these squares into large ones and small ones and explain how you decided which squares went in each pile.
PLT Activities: 1, 6, 25

Standard 4

Geometry

Students identify common objects around them and describe their geometric features and position.

- K.4.1 Identify and describe common geometric objects: circle, triangle, square, rectangle, and cube.
Example: Look for cubes and circles at home and at school.
PLT Activities: 1
- K.4.2 Compare and sort common objects by position, shape, size, roundness, and number of vertices.
Example: Compare the numbers of vertices of triangles, squares, and rectangles.
PLT Activities: 67
- K.4.3 Identify and use the terms: *inside*, *outside*, *between*, *above*, and *below*.
Example: Tell when a block is inside or outside a box.
PLT Activities: 6, 21, 25, 47

Standard 5

Measurement

Students understand the concept of time and units to measure it. They understand that objects have length, capacity, weight, and temperature, and that they can compare objects using these qualities.

- K.5.1 Make direct comparisons of the length, capacity, weight, and temperature of objects and recognize which object is shorter, longer, taller, lighter, heavier, warmer, cooler or holds more.
Example: Hold two books side by side to see which is shorter. Hold one in each hand to see which is heavier.
PLT Activities: 4, 6, 21, 41, 67

K.5.2 Understand concepts of time: morning, afternoon, evening, today, yesterday, tomorrow, week, month, and year. Understand that clocks and calendars are tools that measure time. Example: Use a calendar to find the number of days in the month of your birthday.

PLT Activities: 27, 41

KINDERGARTEN

Living and Learning Together

In Kindergarten, students learn about their environment as they begin to distinguish events of the past from the present and begin the development of citizenship, thinking skills, and participation skills.

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 Kindergarten 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 examine the connections of their own environment with the past, begin to distinguish between events and people of the past and the present, and use a sense of time in classroom planning and participation.

Standard 2 — Civics and Government

Students learn that they are citizens of their school, community, and country; identify symbols of the state and nation; understand examples of responsible citizenship; follow school rules; and know why rules are needed for order and safety.

Standard 3 — Geography

Students learn that maps and globes are different ways of representing Earth's surface and begin to explore the geographic characteristics of their homes, school, and community.

Standard 4 — Economics

Students explain how people do different jobs and work to meet basic economic wants.

Standard 5 — Individuals, Society, and Culture

Students identify themselves as individuals who interact with other individuals and groups, including the family, school, and community; and identify ways that people, who are similar and different, make up the community.

Standard 1 History

Students examine the connections of their own environment with the past, begin to distinguish between events and people of the past and the present, and use a sense of time in classroom planning and participation.

Historical Knowledge

- K.1.1 Compare people, objects, and events of today and long ago.
Example: Compare objects of the past and present, such as a butter churn and a mixer; compare clothing, houses, and transportation of the past with the present.

PLT Activities: 95

- K.1.2 Identify celebrations and holidays as a way of remembering and honoring events and people in the past.
Example: Identify Thanksgiving; the Reverend Martin Luther King, Jr. Day; Presidents' Day; Memorial Day; Veterans' Day.
PLT Activities: 20, 95

Chronological Thinking

- K.1.4 Identify and order events that take place in a sequence.
Example: Identify events in the school day as first, next, last; list the day's classroom activities in order; place events, such as birthdays, in order; use a calendar to identify national holidays and historical events.
PLT Activities: 95

Standard 2 Civics and Government

Students learn that they are citizens of their school, community, and country; identify symbols of the state and nation; understand examples of responsible citizenship; follow school rules; and know why rules are needed for order and safety.

Roles of Citizens

- K.2.5 Identify and follow school rules to ensure order and safety.
PLT Activities: 87

Standard 3 Geography

Students learn that maps and globes are different ways of representing Earth's surface and begin to explore the geographic characteristics of their homes, school, and community.

The World in Spatial Terms

- K.3.1 Use words related to location, direction, and distance, including *here/there*, *over/under*, *left/right*, and *up/down*.
PLT Activities: 3, 4, 21, 74

Places and Regions

- K.3.3 Describe people and places in the school and community.
Example: People in the school might include school workers; places might include the cafeteria, office, and gym. People in the community might include firefighters; places might include the fire station.
PLT Activities: 16, 20, 54, 74

Physical Systems

- K.3.4 Give examples of seasonal weather changes and describe how seasonal changes affect people and the environment.
Example: In different seasons, people wear different kinds of clothing.
PLT Activities: 20, 22

Human Systems

- K.3.5 Describe simple differences and similarities between ways people live in cities and on farms.
PLT Activities: 16

Environment and Society

- K.3.6 Recommend ways that people can help keep their environment clean.
PLT Activities: 18, 20, 36, 74, 87

Standard 4 Economics

Students explain how people do different jobs and work to meet basic economic wants.

- K.4.1 Explain that people work to earn money to buy the things they want.
PLT Activities: 21
- K.4.2 Identify different kinds of jobs that people do.
Example: Picture books and stories illustrate and identify different types of jobs, as well as tools and clothing used in different jobs.
PLT Activities: 74

Standard 5

Individuals, Society, and Culture

Students identify themselves as individuals who interact with other individuals and groups, including the family, school, and community; and identify ways that people, who are similar and different, make up the community.

- K.5.1 Identify ways in which people are alike and different.
Example: Identify qualities, such as interests, hobbies, skills, and experiences, which make individuals unique.
PLT Activities: 18, 20, 53
- K.5.2 Identify individuals who are important in students' lives — such as parents, grandparents, guardians, and teachers — and give examples of how families cooperate and work together.
PLT Activities: 74
- K.5.4 Identify and compare similarities and differences in families in other places and cultures.
Example: Use picture books and stories to show the similarities and differences in houses, clothing, work, and celebrations.
PLT Activities: 20