



Think Tank is aligned to the Math and Science TEKS for Kindergarten through Grade 5.

Math, Kindergarten.

(5) Patterns, relationships, and algebraic thinking. The student identifies, extends, and creates patterns. The student is expected to identify, extend, and create patterns of sounds, physical movement, and concrete objects.

(6) Patterns, relationships, and algebraic thinking. The student uses patterns to make predictions. The student is expected to:

(A) use patterns to predict what comes next, including cause-and-effect relationships

(7) Geometry and spatial reasoning. The student describes the relative positions of objects. The student is expected to:

(A) describe one object in relation to another using informal language such as over, under, above, and below

(8) Geometry and spatial reasoning. The student uses attributes to determine how objects are alike and different. The student is expected to:

(A) describe and identify an object by its attributes using informal language

(B) compare two objects based on their attributes

(C) sort a variety of objects including two- and three-dimensional geometric figures according to their attributes and describe how the objects are sorted

(9) Geometry and spatial reasoning. The student recognizes attributes of two- and three-dimensional geometric figures. The student is expected to:

(A) describe and compare the attributes of real-life objects such as balls, boxes, cans, and cones or models of three-dimensional geometric figures

(B) recognize shapes in real-life three-dimensional geometric figures or models of three-dimensional geometric figures

(13) Underlying processes and mathematical tools. The student applies Kindergarten mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(B) solve problems with guidance that incorporates the processes of understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

(C) select or develop an appropriate problem-solving strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem

(D) use tools such as real objects, manipulatives, and technology to solve problems

(15) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.

Science, Kindergarten.

(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

(A) ask questions about organisms, objects, and events observed in the natural world

(B) plan and conduct simple descriptive investigations such as ways objects move

(E) communicate observations with others about simple descriptive investigations

(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

(B) make predictions based on observable patterns in nature such as the shapes of leaves

(4) Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:

(B) use senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment

Math, Grade 1.

(6) Geometry and spatial reasoning. The student uses attributes to identify two- and three-dimensional geometric figures. The student compares and contrasts two- and three-dimensional geometric figures or both. The student is expected to:

(C) describe and identify two- and three-dimensional geometric figures in order to sort them according to a given attribute using informal and formal language

(D) use concrete models to combine two-dimensional geometric figures to make new geometric figures

(11) Underlying processes and mathematical tools. The student applies Grade 1 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(B) solve problems with guidance that incorporates the processes of understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

(C) select or develop an appropriate problem-solving plan or strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem

(D) use tools such as real objects, manipulatives, and technology to solve problems

(12) Underlying processes and mathematical tools. The student communicates about Grade 1 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

(13) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.

Science, Grade 1

(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:

(A) ask questions about organisms, objects, and events observed in the natural world

(B) plan and conduct simple descriptive investigations such as ways objects move

(E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations

(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:

(B) make predictions based on observable patterns

Math, Grade 2.

(6) Patterns, relationships, and algebraic thinking. The student uses patterns to describe relationships and make predictions. The student is expected to:

(C) identify, describe, and extend repeating and additive patterns to make predictions and solve problems

(7) Geometry and spatial reasoning. The student uses attributes to identify two- and three-dimensional geometric figures. The student compares and contrasts two- and three-dimensional geometric figures or both. The student is expected to:

(A) describe attributes (the number of vertices, faces, edges, sides) of two- and three-dimensional geometric figures such as circles, polygons, spheres, cones, cylinders, prisms, and pyramids, etc.

(B) use attributes to describe how 2 two-dimensional figures or 2 three-dimensional geometric figures are alike or different

(12) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(B) solve problems with guidance that incorporates the processes of understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

(C) select or develop an appropriate problem-solving plan or strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem

(D) use tools such as real objects, manipulatives, and technology to solve problems

(13) Underlying processes and mathematical tools. The student communicates about Grade 2 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

(14) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.

Science, Grade 2

(2) Scientific investigation and reasoning. The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations. The student is expected to:

(A) ask questions about organisms, objects, and events during observations and investigations

(C) collect data from observations using simple equipment such as hand lenses, primary balances, thermometers, and non-standard measurement tools

(E) communicate observations and justify explanations using student-generated data from simple descriptive investigations

(3) Scientific investigation and reasoning. The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:

(B) make predictions based on observable patterns

Mathematics, Grade 3.

(6) Patterns, relationships, and algebraic thinking. The student uses patterns to solve problems. The student is expected to:

(A) identify and extend whole-number and geometric patterns to make predictions and solve problems

(8) Geometry and spatial reasoning. The student uses formal geometric vocabulary. The student is expected to identify, classify, and describe two- and three-dimensional geometric figures by their attributes. The student compares two- dimensional figures, three-dimensional figures, or both by their attributes using formal geometry vocabulary.

(9) Geometry and spatial reasoning. The student recognizes congruence and symmetry. The student is expected to:

(C) identify lines of symmetry in two-dimensional geometric figures

(14) Underlying processes and mathematical tools. The student applies Grade 3 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(B) solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

(C) select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem

(D) use tools such as real objects, manipulatives, and technology to solve problems

(15) Underlying processes and mathematical tools. The student communicates about Grade 3 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

(16) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to:

(A) make generalizations from patterns or sets of examples and non-examples

(B) justify why an answer is reasonable and explain the solution process

Science, Grade 3

(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and outdoor investigations. The student is expected to:

(A) plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world

(F) communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion

Math, Grade 4.

(7) Patterns, relationships, and algebraic thinking. The student uses organizational structures to analyze and describe patterns and relationships. The student is expected to describe the relationship between two sets of related data such as ordered pairs in a table.

(9) Geometry and spatial reasoning. The student connects transformations to congruence and symmetry. The student is expected to:

(A) demonstrate translations, reflections, and rotations using concrete models

(B) use translations, reflections, and rotations to verify that two shapes are congruent

(C) use reflections to verify that a shape has symmetry

(14) Underlying processes and mathematical tools. The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(B) solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

(C) select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem

(D) use tools such as real objects, manipulatives, and technology to solve problems

(15) Underlying processes and mathematical tools. The student communicates about Grade 4 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

(16) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to:

(A) make generalizations from patterns or sets of examples and non-examples

(B) justify why an answer is reasonable and explain the solution process

Science, Grade 4

(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and outdoor investigations. The student is expected to:

(A) plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions

(F) communicate valid, oral, and written results supported by data

Math, Grade 5.

(14) Underlying processes and mathematical tools. The student applies Grade 5 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(B) solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

(C) select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem

(D) use tools such as real objects, manipulatives, and technology to solve problems

(15) Underlying processes and mathematical tools. The student communicates about Grade 5 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

(B) relate informal language to mathematical language and symbols

(16) Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to:

(A) make generalizations from patterns or sets of examples and non-examples

(B) justify why an answer is reasonable and explain the solution process

Science, Grade 5

(2) Scientific investigation and reasoning. The student uses scientific methods during laboratory and outdoor investigations. The student is expected to:

(A) describe, plan, and implement simple experimental investigations testing one variable

(B) ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology

(F) communicate valid conclusions in both written and verbal forms