**K i D E** 

Correlation for Common Core State Standards (CCSS) K-3

# Kide Science: about us.



Our activities are story-based inquiries - creating playful scenarios in your classroom.

**In every single lesson**, children advance crucial science-process skills (also known as inquiry skills):

- Observation
- Classification
- Communication
- Measurement
- Predication
- Interpretation
- Conclusion



Egg-straordinary Nest Building How do birds look after their babies?

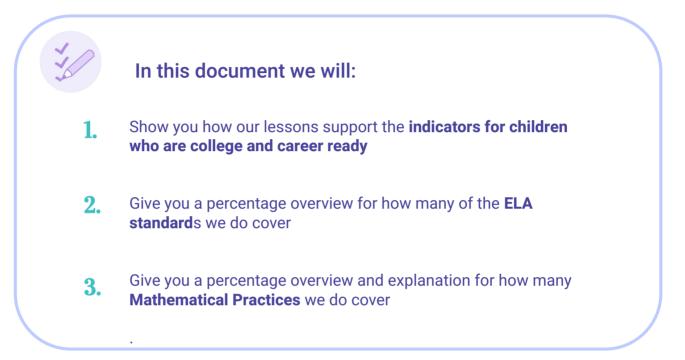
Engineering Science Arts Mathematics

In addition to these scientific inquiry skills, each lesson supports many other skills, including technological, social-emotional, linguistic, mathematical and movement skills.

We really are cross-curricular.

See <u>our other standards documents</u> for more details.

# How Kide Science supports the Common Core State Standards





#### Something missing?

If you have other curriculum requirements, don't hesitate to contact us through info@kidescience.com

# **Students who are college and career ready in Reading, Writing, Speaking, Listening, and Language** How Kide supports these indicators:

#### 1. They demonstrate independence.

During Kide activities, children are active agents in their learning. We encourage practical, hands-on learning to solve story-based problems –naturally developing the children's independence. The teacher is simply the facilitator who joins in the play.

#### 2. They build strong content knowledge.

Our activities build up children's conceptual understanding over time; practicing skills in different curriculum subjects. Children learn to present their knowledge and interpretations in different ways, especially in spoken form, as they report their solutions back to the story characters at the end of each lesson.

# 3. They respond to the varying demands of audience, task, purpose, and discipline.

In our lessons children role play, pretending to be investigators. When this happens, then they communicate as investigators! They begin to use the vocabulary and display the different communication skills needed to share ideas with both their classmates, and also to our imaginary story characters.

#### 4. They comprehend as well as critique.

Our stories introduce a problem at the start of each session. There are often suggestions of answers, and children are encouraged to be open minded and test to find out if these are in fact correct. Also, teachers are prompted with open questions to encourage critical thinking.

#### 5. They value evidence.

In every single lesson children are testing out their ideas. When they present their learnings at the end of a session, they can do so because they have found the evidence out themselves.

#### 6. They use technology and digital media strategically and capably.

Our lessons are actually screen-free. But of course, children can be encouraged to use technology to enhance the activities e.g. by photographing their ideas, or by recording videos to present their findings.

#### 7. They come to understand other perspectives and cultures.

Our story world is set in a place like no other: with no specific culture. This is so that children can bring all of their own experiences to the play, whilst learning from their classmates' perspectives too. No answer is wrong in 'Supraland' - to encourage ideas outside children's normal experiences.

# How well do we align? ELA

The main focus during Kide activities is to develop science process skills (inquiry) across many areas of learning. But still, through our story-based lessons, there are lots of opportunities to enhance your English Arts curriculum. See how we align on the next few pages

## **READING: LITERATURE (CCSS.ELA-LITERACY.RL)**

- Key ideas and details (Kide aligns with 75% \*) Craft and Structure (25%)
- Integration of Knowledge and Ideas (63%)
  Range of Reading and Level of Text Complexity (25%)

#### **READING: INFORMATIONAL TEXT (CCSS.ELA-LITERACY.RI)**

Key ideas and details (75%)
 Craft and Structure (33%)
 Integration of Knowledge and Ideas (27%)
 Range of Reading and Level of Text Complexity (25%)

#### **READING: FOUNDATIONAL SKILLS (CCSS.ELA-LITERACY.RF) (-)**

As a shared read, children could be supported to develop their foundational skills during the story.

### WRITING (CCSS.ELA-LITERACY.W) (-)

Develop these by filling in a learning journal after each session. Some of our adaptation tips also include writing e.g. writing a recount of what they found out to show our characters.

# SPEAKING AND LISTENING (CCSS.ELA-LITERACY.SL)

- Comprehension and Collaboration (92%)
- Presentation of Knowledge and Ideas (83%) Conventions of Standard English (-)
  - Knowledge of Language (-)
- Vocabulary Acquisition and Use (100%)

# **English Language Arts Standards** READING: LITERATURE (CCSS.ELA-LITERACY.RL)

Each Kide lesson starts with a story - a letter from a character who needs help to solve a problem. See how the ELA standards could be met using our lessons:

### Key ideas and details (75%)

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	With prompting and support, ask and answer questions about key details in a text.	Sk and answer questions about key details in a text.	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2	With prompting and support, retell familiar stories, including key details.	Retell stories, including key details, and demonstrate understanding of their central message or lesson.	Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
3	With prompting and support, identify characters, settings, and major events in a story.	Describe characters, settings, and major events in a story, using key details.	Describe how characters in a story respond to major events and challenges.	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events

# Craft and Structure (25%)

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	Ask and answer questions about unknown words in a text.	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.
2	Recognize common types of texts (e.g., storybooks, poems).	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.	Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
3	With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	Identify who is telling the story at various points in a text.	Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	Distinguish their own point of view from that of the narrator or those of the characters.

# **Integration of Knowledge and Ideas (63%)**

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).	Use illustrations and details in a story to describe its characters, setting, or events.	Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.	Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting)
2	With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	Compare and contrast the adventures and experiences of characters in stories.	Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series)

# English Language Arts Standards

# **READING: LITERATURE (CCSS.ELA-LITERACY.RL)**

Each Kide lesson starts with a story, a letter from a character who needs help solving problem. See how the ELA standards could be met using our lessons:

# **Range of Reading and Level of Text Complexity (25%)**

KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
Actively engage in group reading activities with purpose and understanding.	With prompting and support, read prose and poetry of appropriate complexity for grade 1.	By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently.

# **READING: INFORMATIONAL TEXT (CCSS.ELA-LITERACY.RI)**

## Key ideas and details (75%)

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	With prompting and support, ask and answer questions about key details in a text.	Ask and answer questions about key details in a text.	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2	With prompting and support, identify the main topic and retell key details of a text.	Identify the main topic and retell key details of a text.	Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.	Determine the main idea of a text; recount the key details and explain how they support the main idea.
3	With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	Describe the connection between two individuals, events, ideas, or pieces of information in a text.	Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

# **Craft and Structure (33%)**

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	With prompting and support, ask and answer questions about unknown words in a text.	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
2	Identify the front cover, back cover, and title page of a book.	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
3	Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	Identify the main purpose of a text, including what the author wants to answer, explain, or describe.	Distinguish their own point of view from that of the author of a text.

#### **READING: INFORMATIONAL TEXT (CCSS.ELA-LITERACY.RI)**

#### Integration of Knowledge and Ideas (27%)

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	Use the illustrations and details in a text to describe its key ideas.	Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
2	With prompting and support, identify the reasons an author gives to support points in a text.	Identify the reasons an author gives to support points in a text.	Compare and contrast the most important points presented by two texts on the same topic.	Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
3	With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).		Compare and contrast the most important points and key details presented in two texts on the same topic.

#### Range of Reading and Level of Text Complexity (25%)

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	Actively engage in group reading activities with purpose and understanding.	With prompting and support, read informational texts appropriately complex for grade 1.	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2-3 text complexity band independently and proficiently.

### READING: FOUNDATIONAL SKILLS (CCSS.ELA-LITERACY.RF) (-)

As a shared read, children could be supported to develop their foundational skills during the story.

#### WRITING (CCSS.ELA-LITERACY.W) (-)

Develop these by filling in a learning journal after each session. Some of our adaptation tips also include writing e.g. writing a recount of what they found out to show our characters.

# SPEAKING AND LISTENING (CCSS.ELA-LITERACY.SL)

## **Comprehension and Collaboration (92%)**

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.	Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
2	Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.	Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

# **Comprehension and Presentation of Knowledge and Ideas (83%)**

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	<b>V</b>	<b></b>	<b>V</b>	$\bigotimes$
	Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
2	Add drawings or other visual displays to descriptions as desired to provide additional detail.	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.	Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
3	Ø	<b>Ø</b>	<b></b>	<b>I</b>
	Speak audibly and express thoughts, feelings, and ideas clearly.	Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 here for specific expectations.)	Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 here for specific expectations.)	Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.)

# LANGUAGE (CCSS.ELA-LITERACY.SL)

# Vocabulary Acquisition and Use (100%)

	KINDERGARTEN (3-5v)	GRADE 1 (6V)	GRADE 2 (7V)	GRADE 3 (8V)
1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from an array of strategies.
2	With guidance and support from adults, explore word relationships and nuances in word meanings.	With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.	Constrate understanding of word relationships and nuances in word meanings.	Demonstrate understanding of figurative language, word relationships and nuances in word meanings.
3	Use words and phrases acquired through conversations, reading and being read to, and responding to texts.	Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).	Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).	Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

# STANDARD 10: RANGE, QUALITY & COMPLEXITY\*

STORIES	DRAMAS	POETRY	INFORMAL TEXT
Control Contro	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Note: Content of the second se

#### \*How our program supports this standard

**STORIES**: Every Kide activity begins with a story - in the form of a letter from a fictional character. These stories are short, mysterious adventures introducing a problem to be solved. And, because these happen in a fantasy world called *Supraland*, miraculous things can happen there. Yet, sometimes the events are very much earth-like, representing realistic fiction.

**DRAMAS**: During the activities, children participate in pretend play – they get to work in role as a scientist or investigator to solve problems.

**POETRY:** Occasionally the mystery stories also include little poems or riddles, as clues for the children to start investigating the research problem. Our home activities also include poems to summarize the problems which need solving.

**INFORMAL TEXT:** Some Kide activities include information displayed in graphs, charts, maps or codes. They can also include directions or step-by-step visual instructions.

# **Standards for Mathematical Practice**

How Kide supports these:

#### 1. Make sense of problems and persevere in solving them.

Our stories introduce a problem at the start of each session. Children are encouraged to test out different solutions until they find the answer; thus building the culture of persevering at a task.

#### 2. Reason abstractly and quantitatively.

As our investigators become more independent in their experimenting, they will gain a better sense of of quantities and their relationships in problem situations. For example, after testing 2 spoonfuls of a mixture and seeing no effect, they might suggest using 5 spoonfuls. Some children might even be able to note their measurements down.

#### **3.** Construct viable arguments and critique the reasoning of others.

Our lessons are extremely collaborative, encouraging communication with others. Children have many opportunities to listen, hear different points of view and offer alternatives. This, and their developing understanding of the concepts, will help them to have ever more viable arguments for their own reasoning.

#### 4. Model with mathematics.

Some of our lessons challenge children with an advanced number sense to note down models of their activities using numbers e.g. they might be able to write their own additions in <u>A Secret Friend</u>

#### 5. Use appropriate tools strategically.

In our lessons, children have many opportunities to practice using appropriate tools, e.g., pipettes, pencils, scissors, funnels. Then, using their understanding of these tools, children are guided to evaluate their supplies to make sure they are using the ones which are the most effective. E.g. Digging up Dinosaurs

#### 6. Attend to precision.

Careful counting, and measuring with precision are a large part of our Kide activities. E.g. <u>An Exact Science</u> In all lessons, children are encouraged to explain their ideas at the end of each session, where the teacher can focus upon clarity and detail in their answers.

#### 7. Look for and make use of structure.

One of our most featured skills is classification. This is a skill which needs close observation from the children, and uses their ability to spot patterns or structures in objects, shapes, numbers or events. <u>E.g. The Kindergarten of Shape Creatures</u>

#### 8. Look for and express regularity in repeated reasoning.

We don't focus upon looking for repeated calculations. But children might start relating their experiences in different Kide lessons. We have seen children who can explain their ideas and solutions because they are linking it to something they have seen before: either in a test they have done, or in their own lives. This is the power of inquiry.

# K i D E

# How well do we align? NCTM process Standards

- problem solving
- iceasing and proof
- 🔰 3. communication
- 🏹 4. representation
- 5. connections

# **Mathematics Critical Areas:** INSTRUCTIONAL TIME FOCUS

We develop science process skills (inquiry) across many areas of learning, especially in STEAM subjects. This means that Mathematics standards are supported, but they aren't the only focus.

### Kindergarten: 100%

1) representing and comparing whole numbers, initially with sets of objects

2) describing shapes and space

## **Grade 1: 50%**

1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20

2) developing understanding of whole number relationships and place value, including grouping in tens and ones

- 3) developing understanding of linear measurement and measuring lengths as iterating length units
  - () 4) reasoning about attributes of, and composing and decomposing geometric shapes.

### Grade 2: 25%

- 1) extending understanding of base-ten notation
- 2) building fluency with addition and subtraction
- 3) using standard units of measure\*
- 4) describing and analyzing shapes

\*some of our lessons suggest using standard units of measure as an added challenge, but this is not the focus for the learning in the lesson

# Grade 3:

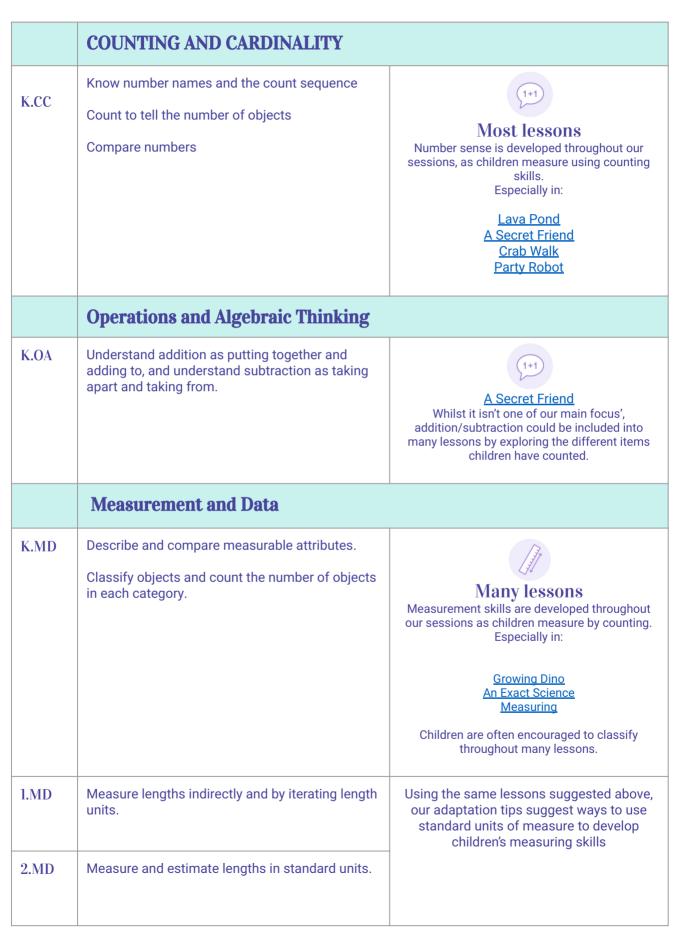
1) developing understanding of multiplication and division and strategies for multiplication and division within 100

2) developing understanding of fractions, especially unit fractions (fractions with numerator)

- 3) developing understanding of the structure of rectangular arrays and of area
- 4) describing and analyzing two-dimensional shapes

# Mathematics: Standards we align with

Here are some suggested lessons which particularly support these standards. Of course, many of our lessons can be tweaked to include more Mathematics.



# Mathematics: Standards we align with (continued) KiDE

Here are some suggested lessons which particularly support these standards. Of course, many of our lessons can be tweaked to include more Mathematics.

	Geometry	
K.G	Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). Analyze, compare, create, and compose shapes.	Most lessons      Children are reminded to observe the sizes, shapes and features of objects throughout our lessons, especially in these:      Planning an Escape      Kindergarten of Shape Creatures      A Secret Friend      Egg-straordinary Nest Building
1.G 2.G	Reason with shapes and their attributes.	To bring in more reasoning for the lessons listed above, use our adaptation tips.