MATH PK

FOR FAMILIES

YOU ARE your child's first teacher. Learn how to support the goals of Oklahoma's academic standards and why they are important to your child. Please be in regular communication with your child's teachers and ask how you can support math learning at home. When schools and families work together as partners, it helps your child achieve academic excellence!

PRE-KINDERGARTEN

What to expect:

Learning is particularly important in pre-kindergarten because at this age, children have a natural curiosity about the world around them and a willingness to learn and be taught. Take advantage of this natural curiosity by encouraging them to make guesses, use their reasoning skills, take risks and solve problems. Children in Pre-K are developmentally ready to learn mathematical concepts like quantity, patterns, measurement and data. Play is a developmentally appropriate method for young learners to explore the world and make sense of their environment. This information is a snapshot of learning in mathematics for pre-kindergarten. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Know number names and be able to count to 20.
- Count the number of objects in a group up to 10.
- Recognize and be able to repeat patterns such as red, yellow; red, yellow; red, yellow.
- Identify common shapes such as triangles and circles.
- Compare two objects. (For example, a circle and an oval both have curved lines, but the oval is flatter than a circle.)
- Describe, sort and compare real-world objects.

What to do at home:

- Count common household objects (toys, coins, lamps, apple slices, etc.).
- Create simple patterns with sounds, movements and everyday objects, such as stomp, clap; stomp, clap; stomp, clap.
- Identify circles, squares, rectangles and triangles from everyday life. (For example, the sun is round, a flag is a rectangle, etc.)
- Identify objects as same or different and as more or less. (Use familiar things such as seasonal clothing items, things seen on a walk, etc., to classify the items.)
- Give your child opportunities to develop and apply all of the skills listed above with activities such as helping to put away the groceries or folding laundry.

OKLAHOMA Education

MATH

FOR FAMILIES

Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Play is a wonderful way to nurture curiosity in young children, so be sure to allow plenty of playtime. Encourage your child to ask questions, discover answers and explore their world.

Support your child's curiosity with questions like these:

- What do you notice about this object or group of objects? What do you wonder about them?
- What else would you like to learn about them?
- When you look around, what do you see that is alike? What do you see that is different?
- What do you see when you look outside?
- What do you like to do?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- How many types of fruit would you like to eat for lunch? Which ones will you choose and why?
- How many buttons do we need to close on your jacket today? Why?
- What was the best part of the day and why?
- How did you help someone today?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE DISCUSSION

- What do you notice about this math problem?
- What do you wonder about it?
- What do you think will happen next?

DURING DISCUSSION

- How can you understand more about this through playing or a game?
- What can you count and compare?
- Can you find patterns around us?

AFTER DISCUSSION

- What other places might we find these things?
- What other items could you count?
- Could this be figured out a different way? How?

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MATH K

FOR FAMILIES

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KINDERGARTEN

What to expect:

Kindergarten is when children are beginning to grow academically, socially and emotionally in a structured learning environment. Families play an important role as they support and reinforce positive learning behaviors and become involved in school activities. In kindergarten, children are beginning to understand concepts that will become the building blocks for success in mathematics in later grades, including quantity, patterns, measurement and data. Explore these concepts through playful hands-on activities and by talking to children about what they notice and wonder about. Play continues to be a developmentally appropriate method for young learners to explore the world and make sense of their environment. This information is a snapshot of learning in mathematics in kindergarten. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Count numbers in order to 100 by 1's and 10's.
- Separate a small group of objects such as snacks, clothing or utensils into at least two equal sets.
- Identify pennies, nickels, dimes and quarters.
- Recognize, repeat and extend patterns. (For example, students might track and identify daily and seasonal weather patterns and make predictions to extend the pattern.)
- Arrange up to six objects such as pencils and crayons according to length.
- Use smaller shapes to form a larger shape (build a house out of triangles, squares and rectangles, for example).

What to do at home:

- Give your child a group of foods from snack or mealtime (carrot sticks, slices of bread, etc.) and ask them to separate them into two equal groups.
- Ask your child to tell you which number is one more or one less when working together on counting.
- Collect random objects such as shoes, toys and books and ask your child to sort them into groups based on color, size and shape.
- Ask your child to identify, name and describe shapes from inside your house and in other familiar places. (For example, windows are rectangles, bowls are round, etc.)

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Fostering Curiosity

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Support your child's curiosity with questions like these:

- What do you wonder about?
- What patterns do you see when you look outside?
- What book do you want to read today?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's math communication skills with questions like these:

- What food would you like more of? Which food would you like less of? Why?
- What patterns did you discover around you today?
- What do community helpers do for people?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What do you wonder about it?

WHILE YOU SOLVE

- What do you think will happen next?
- How much is that?
- What else do you need to figure it out?

AFTER YOU SOLVE

- Where else would we find this information?
- What would happen if we changed something about the math problem?
- Do you think it will always work this way? Why or why not?

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MATH 1

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FIRST GRADE

What to expect:

In first grade, children are becoming more independent. Their counting skills are improving, and they are beginning to learn addition and subtraction. As first-graders use math tools, ask questions and develop problem-solving strategies, they are gaining a deeper understanding of mathematical ideas by working in a classroom group, in smaller groups and on their own. Play is a developmentally appropriate method for young learners to explore the world and make sense of their environment. This information is a snapshot of learning in mathematics for Grade 1. For a complete set of mathematics standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Count forward from any number up to 100 by 1's, 2's, 5's and 10's.
- Solve addition and subtraction problems up to 10.
- Identify coins and their values.
- Create and complete repeating and growing patterns. (For example, when we count forward, numbers get bigger by one, and we use this pattern frequently.)
- Identify trapezoids (four-sided shapes with one pair of parallel sides like a lampshade, table or clock) and hexagons (six-sided shapes like a honeycomb).
- Tell time to the hour and half-hour.

What to do at home:

- Ask your child what time it is, what day of the week it is, what day tomorrow is and what day yesterday was.
- Hand your child a few coins of the same value and ask them to tell you the total amount.
- Create math problems about things happening at home. (For example, ask your child, "If we started dinner with 6 pieces of bread but have eaten 3, how many are left?")
- Identify patterns found in the real world. (For example, ask your child, "If the clock chimes once at one o'clock and twice at two o'clock, what will happen at three o'clock?")
- Separate objects into equal groups. (For example, ask your child to cut a pizza into slices so every family member has the same number of slices.)

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Fostering Curiosity

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Support your child's curiosity with questions like these:

- What are you interested in knowing more about?
- What else does that make you think of?
- Where do you think we can learn more about these things?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- What patterns did you see today? Where did you see them?
- Did the day go quickly or slowly today? What made it seem that way and why?
- How much more _____ do you need? How much do you have right now? How do you know?
- Did you get to listen to someone else's math idea today? What was it, and did it make sense to you?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What do you wonder about it?
- What do you think will happen?

WHILE YOU SOLVE

- What has happened so far in this problem?
- What do you think will happen next?
- What information do we already know?
- How can that help you solve the problem?

AFTER YOU SOLVE

- Could this have been solved in other ways? How?
- Where else would you see situations like this?

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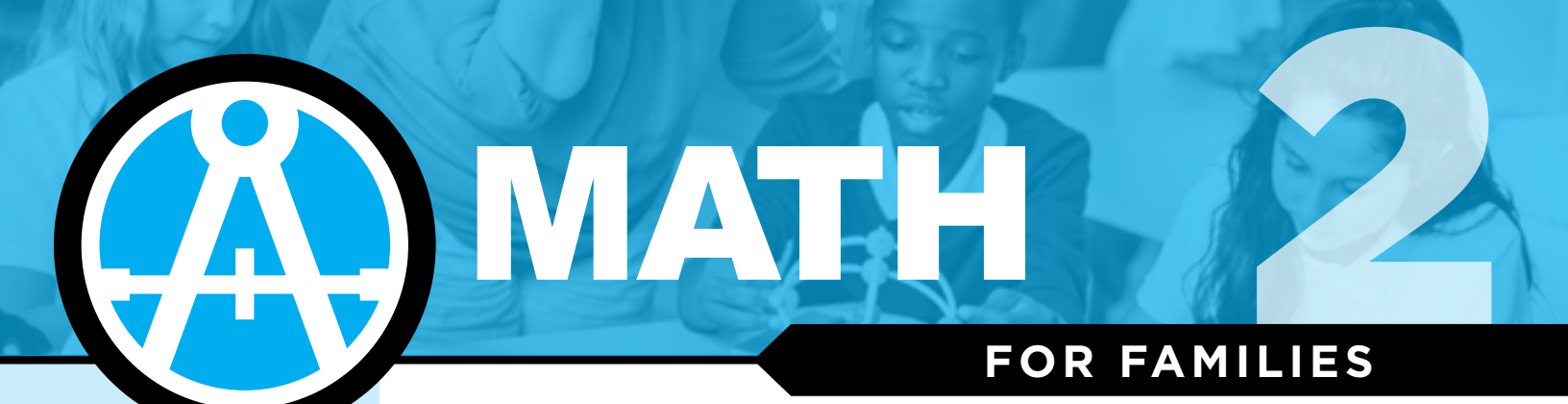

MATH 2

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SECOND GRADE

What to expect:

In second grade, children are developing their math skills by applying new knowledge to what they already know. They are learning how to make a plan for solving a problem by trying different approaches when the problem seems difficult or they do not know the solution. At this age, children are beginning to understand how numbers and tools like rulers and scales come together to create learning experiences. They can explain how to solve a problem and why the solution works. Play continues to be a developmentally appropriate method for young learners to explore the world and make sense of their environment. This information is a snapshot of learning in mathematics for Grade 2. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Read and write numbers to 1,000.
- Add and subtract one- and two-digit numbers. (For example, 9 - 4 = 5, 25 + 19 = 44, etc.)
- Create and describe increasing and decreasing patterns of shapes and numbers (the number of skips in a game or rings in a tree, for example).
- Read and write time on a traditional and digital clock.
- Write and draw fractions for halves, thirds and fourths.
- Use a ruler to measure lengths to the nearest inch and centimeter.

What to do at home:

- Create math problems about things happening at home. (For example, ask your child, "If we started dinner with 10 slices of pizza but have eaten 3, how many are left?")
- Determine the value of coins up to one dollar.
- Write two different three-digit numbers on a piece of paper and ask your child which one is greater or less than the other.
- Ask your child to tell you what time it is.
- Practice using a ruler to measure household items, such as school binders and a TV screen.
- Ask your child to help measure ingredients while cooking or baking.

OKLAHOMA Education

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FOR FAMILIES

Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Play is a wonderful way to nurture curiosity in young children, so be sure to allow plenty of playtime. Encourage your child to ask questions, discover answers and explore their world.

Support your child's curiosity with questions like these:

- What do you notice or wonder about in your community?
- What new words or new things have you discovered?
- What math problems do you see around us? What problems could you make from what you see?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- If you switched places with your teacher tomorrow, what would you teach the class? Why?
- Did you get a chance to listen to other people's ideas in math class today? Did they make sense to you?
- Did you learn something that challenged you today, or was there something you didn't understand?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What does it make you wonder about?
- Where do we see this occur around us?

WHILE YOU SOLVE

- What do you think needs to happen next?
- Is there any other way to find the answer?

AFTER YOU SOLVE

- What would have made this problem easier to solve?
- Is there an easier way to do it? How?

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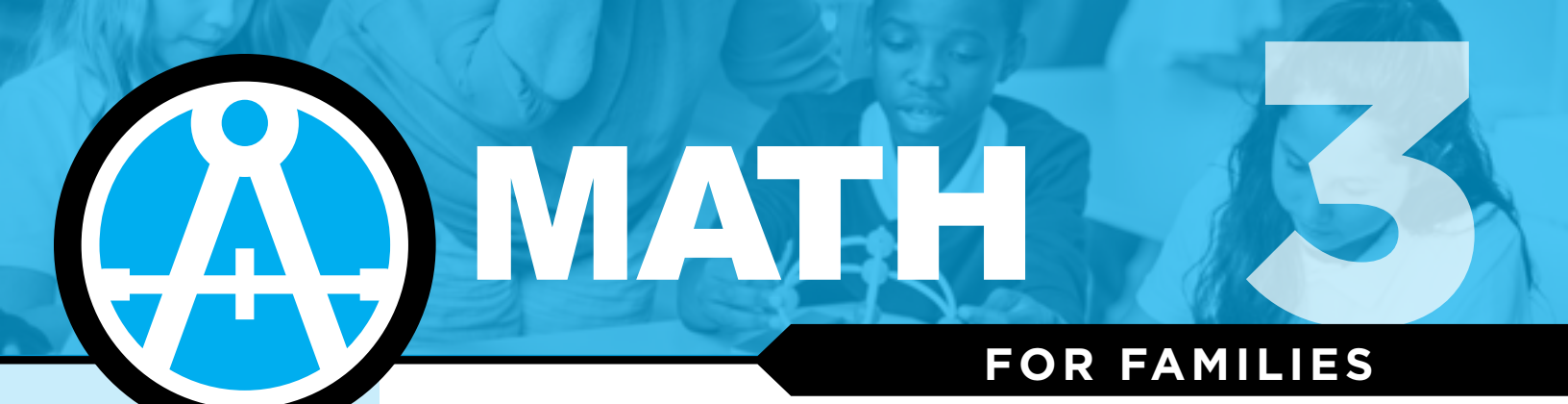

MATH 3

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THIRD GRADE

What to expect:

In third grade, students will build on the skills learned in first and second grade and apply what they know to more difficult mathematical tasks. Three of the most important third-grade math topics are multiplication, division and fractions, all of which are building blocks for many skills students will learn in later grades. This information is a snapshot of learning in mathematics for Grade 3. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Read and write numbers up to 100,000.
- Know multiplication and related division facts for whole numbers up to 10, such as 3 x 5 = 15 and 15/3 = 5.
- Read and write fractions.
- Classify angles as acute (∠), right (∟), obtuse (⦜) and straight (—).
- Find a shape's perimeter (its total distance or the length around it).

What to do at home:

- Create your own multiplication and division games with numbered cubes, dominoes or playing cards.
- Allow your child to help measure ingredients while cooking or baking.
- Identify fractions around the house. For example, if a four-drawer dresser has socks in one drawer, then 1/4 of the dresser has socks in it.
- Ask your child to identify the shapes and types of angles in road signs. (For example, a traffic light is a rectangle.)
- Use a ruler to measure the sides of four-sided objects in daily life (a tabletop, cell phone, etc.) and add all the sides together to find the perimeter.

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FOR FAMILIES

Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with questions like these:

- What geometric shapes do you see in your neighborhood, and where do you see them?
- If you had a million dollars, what would you buy first? Why?
- What patterns do you hear in your favorite song?
- How many candies could go around the edges of this brownie?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- What shapes of food does your favorite meal include?
- I think we could solve the problem this way, but what other ways could we do it?
- Where could we use multiplication and division facts at the grocery store today?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What does it make you wonder about?
- What do you need to be able to solve it?

WHILE YOU SOLVE

- What have you experienced before that is similar to this problem?
- Can we use that thinking here?

AFTER YOU SOLVE

- Could this problem have been solved a different way?
- Are there other places we might see something similar to this?

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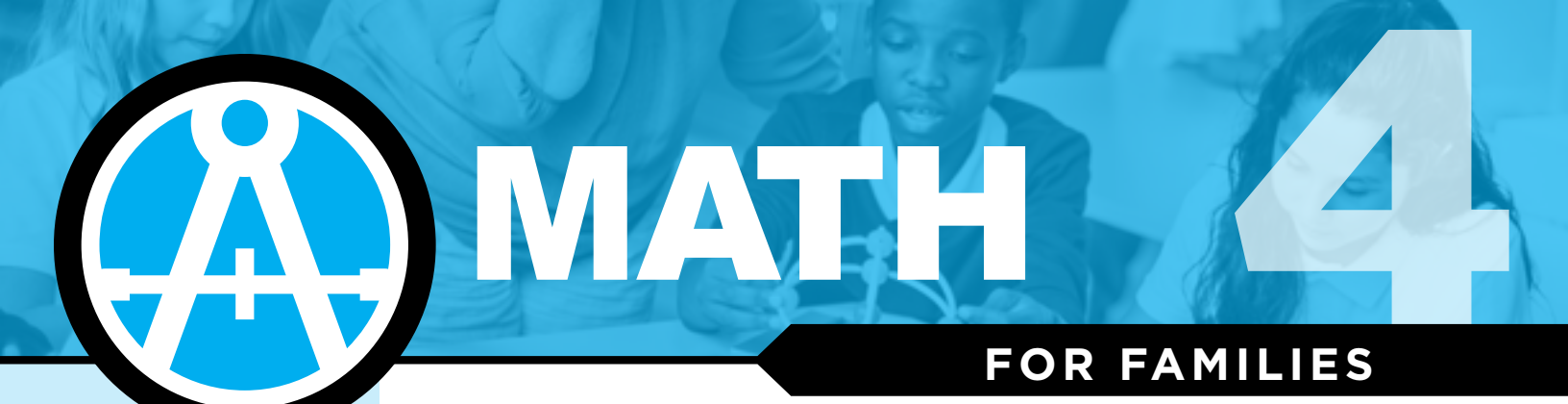

MATH 4

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FOURTH GRADE

What to expect:

In fourth grade, math continues to build on the skills developed in third grade. One of the main areas of study in fourth grade is using arithmetic to solve problems. In this grade, students will learn more difficult multiplication and division problems and add and subtract fractions and decimals. This information is a snapshot of learning in mathematics for Grade 4. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Know multiplication and related division facts for whole numbers up to 12, such as 11 x 12 = 132 and 132/11 = 12.
- Multiply and divide by 10, 100 and 1,000.
- Add and subtract fractions with like denominators. (For example, 1/4 + 3/4 = 1.)
- Read and write decimals to the hundredths place. (For example, thirty-eight hundredths is the same as 0.38.)
- Create patterns that grow and define the rule. (The pattern 2, 10, 50, 250, for example, follows the rule of multiply by 5.)
- Name, describe and classify shapes. For example, a four-sided shape with every side the same length is a square or rhombus.

What to do at home:

- Create multiplication games with numbered cubes, playing cards or dominoes.
- Ask your child to multiply a speed limit that ends in zero by 10, 100 or 1,000 when you pass the sign on a roadway.
- Encourage your child to help measure ingredients while cooking or baking, then ask them to double or triple the recipe measurements.
- Ask your child to identify the place value of numbers behind the decimal point. (For example, in 3.2, the 2 is in the tenths place, while in 49.75, the 5 is in the hundredths place with a value of .05.)
- At the grocery store, ask your child to identify the values of each number in the item prices.
- Ask your child to keep a running record of the different shapes and angles in your neighborhood on a tablet, notepad or phone.

OKLAHOMA Education

MATH

FOR FAMILIES

Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with questions like these:

- What is your favorite food that is cut into pieces? What size pieces should we cut it into? What is the shape of the pieces?
- In the whole world, what is the tallest animal? The shortest? How would you find out?
- How long do you think it takes astronauts to travel to the moon?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's math communication skills with questions like these:

- Is it okay to have a different way to solve a problem than your friend? Why or why not?
- What adventure would you take if you had $100,000? What would you be able to do? Who would you take with you, and would that affect what you could do?
- How did you help someone using math today?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What does it make you wonder about?
- What do you need to start working on it?

WHILE YOU SOLVE

- What do you think needs to happen next?
- What other information would be helpful to solve this problem?
- What words can I help you understand?

AFTER YOU SOLVE

- How did you feel while working on this problem?
- How could we have solved it a different way?
- Where else would we see something similar to this?

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MATH 5

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FIFTH GRADE

What to expect:

In fifth grade, students will practice more complex math with fractions, decimals and larger numbers using the four basic operations: addition, subtraction, multiplication and division. Fifth-grade math also emphasizes real-world situations to help students strengthen their skills and solve problems that occur in their daily lives. This information is a snapshot of learning in mathematics for Grade 5. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Divide multi-digit numbers with remainders. (For example, 432 divided by 11 can be expressed as 39 3/11.)
- Add and subtract decimals and fractions with like and unlike denominators. (For example, 1/8 + 1/4 can be calculated as 1/8 + 2/8 = 3/8.)
- Describe and find the volume of three-dimensional shapes. (For example, a cube with dimensions of 4 inches wide by 3 inches deep and 4 inches tall would have a volume of 48 inches because 4 x 3 x 4 = 48.)
- Construct and analyze double-bar and line graphs and use ordered pairs like x,y where x represents horizontal distance and y represents vertical distance on coordinate grids.
- Find the mean (average), median (midpoint or middle number), mode (number that occurs the most) and range (difference between the highest and lowest number) from a set of numbers.

What to do at home:

- Cook with children using recipes that include fractions, then ask them to double or triple the recipe ingredients.
- Pour the same liquid into containers of different sizes and discuss what your child observes and how to measure the volumes.
- Ask your child to keep track of how many times people do something (leave a room or make baskets in a basketball hoop, for example), then ask them to create a graph of that data and explain it to you.
- Give your child five numbers – for example, 26, 30, 32, 32, 35. Ask your child to use the data to find the mean, or average (31); median, or middle number (32); mode, or number that occurs the most (32); and range, the difference between the highest and lowest number (35 - 26 = 9).

OKLAHOMA Education

MATH

FOR FAMILIES

Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with questions like these:

- What would happen if houses were shaped like pyramids? How big would they have to be for our family to live comfortably?
- Who do you think knows the largest number in the world, and how did they figure it out?
- If we didn't have coins or bills to use for money, what would we do?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- Where did you see examples of math today? Do you think everyone agrees what you saw is math?
- What went well in math today? What didn't go as well? What can you do to make tomorrow better than today?
- What was your favorite part of math class this week and why?
- How did you help someone using math today?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What does it make you wonder about?
- What do you need to be able to start on the problem?

WHILE YOU SOLVE

- Is there other information that would make this problem easier?
- What do you do when your strategy doesn't work?
- What resources can you use to understand math you aren't familiar with?

AFTER YOU SOLVE

- Does your answer make sense?
- Where else would we see something similar to this?
- What problems did you have with this?
- What was the solution to your challenges?

Join the conversation!
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MATH 6

FOR FAMILIES

YOU ARE your child's first teacher. Learn how to support the goals of Oklahoma's academic standards and why they are important to your child. Please be in regular communication with your child's teachers and ask how you can support math learning at home. When schools and families work together as partners, it helps your child achieve academic success!

SIXTH GRADE

What to expect:

In sixth grade, the mathematical skills and understanding your child is developing will be key foundations for success in high school math and college and career readiness. These include working with ratios and rates and with the building blocks for algebra, variables and variable expressions. This information is a snapshot of learning in mathematics for Grade 6. For a complete set of mathematics academic standards, click here or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Develop stronger skills in addition and subtraction of whole numbers and in multiplication and division of fractions, decimals and mixed numbers.
- Make connections between real-world and mathematical problems involving ratios (a comparison of two or more numbers that indicates their sizes in relation to each other), area (the amount of flat space a shape takes up), mean (average), median (middle number or midpoint), mode (number that occurs the most) and range (difference between the highest and lowest number).
- Represent real-world situations and word problems as expressions, equations and inequalities. (For example, "Clara ran 10 miles, which is twice as far as Nina ran. How far did Nina run?" can be represented by $2x = 10$, with x being how far Nina ran.)
- Determine the likelihood or probability that events will occur. (For example, if you have 12 marbles in a bag and all 12 of them are green, it is certain – in other words, there is a 100% chance – you will pull a green marble from the bag.)

What to do at home:

- Ask your child to look at the same item at the store in two different sizes and determine which size is a better buy for the money.
- Pick out four items for sale at a store and ask your child to calculate the mean (average) cost of the four items and how the mean changes if an item is removed.
- Show your child how fast you are driving and ask how long it will take to get home at that rate of speed if you are 20 miles away.
- Ask your child to calculate how much money they would save when given a sale with a percentage of savings. (For example, ask your child, "If the shirt is 20% off and originally cost $40, how much will we pay?")

OKLAHOMA Education

MATH

FOR FAMILIES

Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Provide opportunities for your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with questions like these:

- Do you think there are fake numbers? Why or why not?
- What would happen if we didn't have the number zero?
- If you could give one gift to every child in the world, what gift would you give and why?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting these different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- What goals can you set to help you understand math better?
- What is your favorite math concept and why?
- How can you make a positive difference for someone using math today?

Fostering Comprehension

Comprehension in math can be thought of as making sense of a problem or real-world situation. Children often have difficulty seeing how math connects to the real world or struggle to be sure their answer makes sense. Help your child with math comprehension by asking if their solution actually answers the problem. Asking children, "Does your answer make sense to you?" helps them stop and think deeply about the solution.

BEFORE YOU SOLVE

- What do you notice about this math problem?
- What does it make you wonder about?
- What do you need to know to tackle the problem?

WHILE YOU SOLVE

- How does this problem remind you of a problem you have already solved or something you already know?
- What resources can you use to understand ideas you aren't familiar with?

AFTER YOU SOLVE

- Could this have been solved a different way? Which way is more efficient?
- Where would we see this in the real world?
- Could you help solve it when we see it again?

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