

Sample ASSESSMENT QUESTION(S) in this grade:

Math

You were watching the wheels in a parade of bicycles and tricycles, and you counted 12 wheels all together. What combination(s) of bicycles or tricycles might have been in the parade? Explain your reasoning.

Science

Go outside each night for a month and draw a picture of the shape of the moon each night. Describe the phases of the moon using your pictures.

Note: *Students should be able to explain their thinking verbally and possibly in writing.*

You and your child may want to try these problems together. If you are interested in additional problems or the answers, please see the <http://mc2.nmsu.edu> website!

What are standards?

Standards are expectations for students and teachers. They are statements that tell what your child should know and be able to do.

Who should I contact to find out more about standards and our schools?

Talk to your child's teacher or principal to learn more about standards based learning. You can also contact the subject area specialists at the New Mexico Public Education Department, Santa Fe, NM.

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What should
**Second grade
mathematics
and science**
look like
in your school?



Based on New Mexico
Standards and Benchmarks

What should I see happening in my child's classroom?

Every day, students should be:

- relating math and science to their everyday lives
- asking and answering questions about their surroundings
- solving math and science problems in different ways
- working with other students to solve problems
- writing and talking about their own ideas in math and science
- DOING activities! ... using tools and objects to learn and to show what they know
- using diagrams, graphs, and numbers to show relationships in math and science
- learning that everyone can do math and science

This is called Standards Based Instruction!



Big ideas in Second Grade SCIENCE

Scientific Thinking

- Do simple investigations and share findings using charts and diagrams
- Accurately measure length, weight, and temperature
- Make predictions based on observations

Physical Science

- Explore changes due to heating and cooling
- Explore forms and uses of energy such as heat, light, sound, electricity, and motion
- Explore the effects of pushing and pulling

Life Science

- Observe individual differences between living things of the same kind
- Learn about different types of fungi
- Compare and describe life cycles of different animals
- Explore how living things are affected by environment and heredity
- Learn about human organs and systems and how they work

Earth and Space Science

- Observe the phases of the moon and learn that the sun is a star
- Learn about shapes, sizes, and properties of rocks

Science and Society

- Investigate how science can help us stay healthy
- Know that some materials are better than others for making particular things (paper, cardboard, plastic, metal, fiberglass, wood)

Big ideas in Second Grade MATHEMATICS

Number and Operations:

- Read, write, model, and sequence (forward and backward) whole numbers up to 1,000
- Explore place value, the difference between odd and even numbers, and estimation strategies
- Add and subtract numbers up to three digits using a variety of strategies
- Explore multiplication and division concepts (repeated addition, equal size groups)
- Understand that fractions represent parts of a whole

Algebra:

- Recognize, describe, extend and create repeating and growing patterns, including quantitative change over time
- Use mathematical language to describe mathematical ideas and situations
- Solve problems related to equalities (10 pennies = 1 dime, 12 inches = 1 foot)
- Construct and solve number sentences that have variables representing numbers up to 20 ($20 = 6 + _$)

Geometry:

- Use maps to locate landmarks and create paths to get from one location to another
- Make and draw rectangular arrays
- Explore symmetry in two and three-dimensional shapes
- Explore and visualize geometric shapes in the environment

Measurement:

- Tell time to the nearest quarter hour
- Make comparisons and estimates of length, volume, weight, area and time
- Find and represent the value of a collection of coins and dollars up to \$5.00
- Select and use appropriate measurement tools (rulers, meter sticks) and units (inches, meters, miles)

Data Analysis and Probability:

- Collect, represent, and analyze data using pictures, tables, numbers, tallies, and graphs
- Discuss events as likely, unlikely, possible, certain
- Investigate concepts of chance