

Sample ASSESSMENT QUESTION(S) in this grade:

Math

You and your friends are ordering pepperoni pizza for movie night. The restaurant has 10 inch pizzas* for \$7 and 20 inch pizzas* for \$15. What is the better deal: two 10 inch pizzas or one 20 inch pizza? Explain how you know.

* Pizzas are round and the size of the pizza is given by the diameter in inches.

Science

Choose a plant cell and an animal cell. Compare and contrast the structure and functions of the two cells you picked.

Note: *Students are expected to be able to explain their thinking verbally and 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
**Seventh 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
- explaining and justifying 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 Seventh Grade SCIENCE

Scientific Thinking

- Use print and Web resources to find information and answer scientific questions
- Use math to describe data and observations in a science experiment

Physical Science

- Learn that radioactive elements give off energy when they decay
- Learn that substances can combine to form new substances
- Know how energy changes from one kind to another through living things and ecosystems
- Know how forces cause motion on living systems

Life Science

- Learn how different plants and animals make an ecosystem
- Know how the water, carbon, and nitrogen cycles affect resources in living systems
- Know how to classify living things
- Learn about reproduction and heredity
- Learn the process of natural selection
- Explore the structure and functions of cells

Earth and Space Science

- Learn how the sun's energy supports life on earth
- Know how living things cause changes in Earth's surface and atmosphere

Science and Society

- Study how science has contributed to advances in medicine and health

Big ideas in Seventh Grade MATHEMATICS

Number and Operations:

- Use fractions, decimals, and percents in estimations, computations, and applications (sale discounts, markups, interest earned, tips, commission)
- Read, write, and compare numbers using scientific notation
- Solve problems using absolute value, square roots, and exponents

Algebra:

- Represent mathematical relationships in tables, graphs, verbal rules, and symbolic notation
- Solve problems involving rate, average speed, distance, and time
- Graph and interpret linear relationships
- Simplify numerical and algebraic expressions involving exponents and square roots

Geometry:

- Investigate how perimeter and area are affected by changes in scale
- Explore the relationship between radius, diameter, circumference, and area of a circle
- Use properties of two-dimensional figures to find missing lengths and angles
- Compare similar and congruent figures
- Investigate the properties of geometric solids (pyramids, cones, prisms, cylinders)

Measurement:

- Approximate the relationship between standard and metric systems
- Select and use the appropriate size and type of measurement tool for a given situation
- Use appropriate measurement tools for time, length, area, mass, weight, and volume
- Solve problems involving scale factors, ratios, and proportions

Data Analysis and Probability:

- Explore various forms of representing data and use these forms to compare, draw conclusions, and make predictions
- Investigate how change in scale can influence how data is interpreted
- Select an appropriate measure of central tendency (mean, median, or mode) and use it to describe and compare sets of data
- Describe the probability of events using fractions, decimals, and percents