

PERFORMANCE DESCRIPTORS FOR MASTERY

4TH GRADE SCIENCE

Nature of Science:

SC.PD.4.1

Mastery

Fourth grade students at the mastery level recognize that new discoveries lead to changes in scientific knowledge; interpret data and draw and support conclusions; make predictions and inferences based on patterns of evidence; design simple experiments using safe techniques, and support conclusions with evidence found through research.

Students will:

- Demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.
- Demonstrate the abilities and understanding necessary to do scientific inquiry.
- Demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.

Application of Science:

SC.PD.4.3

Mastery

Fourth grade students at the mastery level identify how parts of a system interact; recognize and create models as representations of real things; observe and identify patterns of change, consistency or regularity within the environment; apply technology to solve problems, gather and communicate data; demonstrate tolerance of different points of view.

Students will:

- Identify how the parts of a system interact.
- Recognize and use models as representations of real things.
- Observe and identify patterns of change, consistency or regularity within the environment.
- Demonstrate the ability to utilize technology to gather and organize data to communicate designs, results and conclusions.
- Identify that a solution to a problem often creates new problems.
- Demonstrate the ability to listen to, be tolerant of, and evaluate the impact of different points of view on health, population, resources and environmental practices while working in collaborative groups.

Content of Science:

SC.PD.4.2

Mastery

Fourth grade students at the mastery level observe and distinguish characteristics, variation, and life cycles of organisms and how they interact within the environment; construct and explain models of habitats, food chains, and food webs; investigate and describe various properties of matter including states of matter, physical and chemical properties/changes; describe energy transformations, investigate conductors / nonconductors and electrical circuits, predict and investigate motion/force, and frequency/pitch; describe earth's geological composition and how it changes; differentiate between types of rocks; compare ocean/fresh water; identify and describe objects within the universe and their movement.

Students will:

- Demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives.
- Demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences.
- Apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences.



4RD GRADE SOCIAL STUDIES

Geography:

Performance Descriptors

Mastery

Fourth grade students at mastery level in geography:

use reference sources and technology to create examples of maps depicting major physical features of the United States;

explain how geographic factors influenced transportation routes, population and interactions;

plan and construct maps to show the effect of geographic factors on historical events; and

compare and contrast how geographic conditions and human interventions have affected the environment, the economy and politics.

Civics:

Performance Descriptors

Mastery

Fourth grade students at mastery level in civics:

explain democratic beliefs as expressed in the founding documents and give examples of good citizenship;

explain the three branches of government and identify the rights of citizens;

justify the rule of law in a democracy and prove how it protects individual rights; and

participate in a school or community service project.

Economics:

Performance Descriptors

Mastery

Fourth grade students at mastery level in economics:

explain and give examples of key economic concepts and analyze factors that impact consumer choices;

relate the need of taxation to fund public services;

compile lists to show what jobs are needed because of supply and demand; and

prioritize the economic factors, including slavery and indentured servitude, that shaped the American colonies before the Revolutionary War.

West Virginia History:

Performance Descriptors

Mastery

Fourth grade students at mastery level in West Virginia Studies:

analyze the effects of geography on various facets of life in West Virginia;

compare and contrast West Virginia facts (e.g., population, products, resources, transportation); and

develop an article promoting West Virginia for inclusion in a brochure or magazine generated by students.

History:

Performance Descriptors

Mastery

Fourth grade students at mastery level in history:

organize and explain various influencing factors upon the founding of the original colonies;

chart contributions of Native Americans, Africans, women and early historical figures involved before, during and after the Revolutionary War;

create a timeline to show events, contributions of historical figures and challenges leading to the beginnings of America as a nation and the establishment of the new government; and

describe the cause and effect relationship between the economic, political and cultural factors, people, events and transportation innovations on Westward Expansion.

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