

3rd Grade Instructional Guide 2019 -2020

Dear 3rd grade students and families,

We miss you all and hope everyone is happy and healthy. Here you will find the 3rd grade standards that have already been taught during the 2019-2020 school year. These are standards your student can practice to review and extend their learning at home.

On the last few pages, you will find the objectives that have not yet been taught this year. This would be considered new learning or review learning from previous grades and would require more guided instruction on your part. While it would be great if students had exposure to this content, it is not required. We recommend spending no more than 1-2 hours per day on traditional academics. We suggest:

20-30 minutes reading

20-30 minutes math practice

20-30 minutes creative projects or writing

As your child's teacher and your school staff we are here for you! We are available by email and will make every effort to support our families as we navigate this time together!

Sincerely,

Penn 3rd Grade Teachers

Reading

Nonfiction Practice

- Author's Purpose, 3.6a
- Preview and use text features including table of contents, headings, pictures, captions, maps, indices, and charts, 3.6c

Text - Nonfiction, Biographies, Autobiographies and Functional Text- (recipes, posters, directions and fliers)

Word Analysis Skills

- Multisyllabic words, 3.3b
- Homophones, 3.4a
- Roots and affixes, 3.4b
- Synonyms, antonyms, 3.4a

Main Idea/Supporting Details/Summarizing Nonfiction

- Identify main idea, 3.6g
- Summarize major points, 3.6f
- Identify supporting details 3.6h

Text - Nonfiction, Biographies, Autobiographies and Functional Text

Strategy – 5Ws, Who, What, When, Where, Why

Fiction and Poetry Story Elements

- Compare and contrast settings, characters, and plot events, 3.5d
- Identify conflict and resolution, 3.5i
- Identify theme, 3.5j

Text – Fiction, Literary nonfiction and Poetry

Strategy – Somebody, Wanted, But, So, Then – **But= conflict** **So=resolution**

Summarizing Plot Events and Identify the Narrator (Fiction)

- Identify Narrator, 3.5e
- Summarize plot events, 3.5f , Sequencing

Text – Fiction, Literary nonfiction and Poetry

Strategy – Sequencing Label paragraphs

Word Analysis Skills

- Context clues, apply meaning clues to determine the meaning of words,3.4c
- Context Clues to clarify meaning of unfamiliar words, 3.4d
- Word Reference Materials, 3.4g- Glossary, Dictionary and Thesaurus – Guide words, dictionary entries and alphabetical order

Drawing Conclusions, Inferences & Prediction in Nonfiction and Fiction

- Draw conclusions using the text for support, 3.5h, 3.6e

Text – Nonfiction, functional text-(recipes, posters, directions and fliers), fiction and poetry

Questioning

- Ask and answer questions about what is read using the text for support, 3.6d
- Ask and answer questions about what is read, 3.5g

Text – Nonfiction, functional text-(recipes, posters, directions and fliers), fiction and poetry

Math

Number Sense through Thousands (3.1abc)

- Place value- read, write and identify the place and value of each digit through thousands, ten thousands, hundred thousands with and without models 3.1a
- Round whole numbers, 9,999 or less to the nearest ten, hundreds and thousands, 3.1b
- Compare and order numbers through 9,999 or less, 3.1c

Addition and Subtraction (2.5a, 3.3ab, 3.17)

- Addition Vocabulary – addend, addend, and sum
- Identity and commutative properties of addition, 3.3a
- Determine the sum of two whole numbers with and without regrouping 3.3a
- Determine the sum of Single/multi-step word problems. 3.3b
- Estimate the sum of two whole numbers and estimate the sum in word problems, 3.3ab
- Subtraction Vocabulary- minuend, subtrahend, and difference
- Determine the difference of two whole numbers with and without regrouping 3.3a
- Determine the difference of Single/multi-step word problems. 3.3b
- Estimate the difference of two whole numbers and estimate the sum in word problems, 3.3ab
- Inverse relationships and Fact Families, recognize and use the relationships between addition and subtraction to solve single step problems, 2.5a
- Create equations to represent equivalent mathematical relationships.(=, or ≠), 3.17

Money (3.6abc)

- Count a collection of coins bills up to \$5.00 3.6a
- Compare money value of two sets of coins or two sets of coins and bills up to \$5.00 3.6
- Make Change from \$5.00 or less

Data Analysis and Probability (3.14, 3.15ab)

- Collect, organize, and construct data in a pictograph and bar graph, 3.15a
- Read and interpret data represented in pictographs, bar graphs, 3.15b
- Probability, Investigate and describe the concept of probability as a measurement of chance and list possible outcomes for a single event, 3.14 (impossible, unlikely, equally likely, likely, and certain)

Multiplication and Division (3.4abcd, 3.17)

- Multiplication vocabulary- factor, factor, and product
- Multiplication properties – identity, commutative, and associative
- Multiplication model- repeated addition, set model, array, area mode, and number line, 3.4a
- Division Vocabulary – dividend, divisor, and quotient
- Division models – repeated subtraction, set models, and number lines, 3.4a
- Inverse relationships and related facts, 3.4a
- Create equations to represent equivalent mathematical relationships.(=, or ≠), 3.17
- Multiplication 2-digit x 1-digit – algorithm and box method,3.4d
- Multiplication 2-digit x 1-digit word problems, 3.4d
- Multiplication and division word problems- single-step and create, 3.4b

Math

Fractions (3.2abc, 3.5)

- Models- region/area, set and length/measurement (number line), name, and write fractions, 3.2a
- Understand the difference between proper, improper and mixed fractions, 3.2a
- Represent fraction and mixed numbers with models, 3.2b
- Compare fractions, with like and unlike denominators using words and symbols ($>$, $<$, $=$, or \neq), 3.2c
- Add/subtract fractions with like denominators on number lines, models and word problems, 3.5
- Changing improper fraction to mixed, 3.5

Measurement (3.7b, 3.10)

- Read temperature to the nearest degree in Celsius and Fahrenheit, 3.10
- Estimate and use U.S. Customary and metric units to measure, liquid volume in cups, pints, quarts, gallons, and liters, 3.7b

Patterns (3.16)

- Identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables, 3.16
- Identify the rule of the patterns to complete or find the missing parts
- Extend or identify growing, repeating patterns

Science

Science Process Skills (3.1A-G)

- Scientific investigation – Ask a question, Make a Hypothesis, Conduct the Experiment, Collect Data, and Conclusion
- Experiments

Matter (SOL 1.3, 2.3, 3.3ABC)

- Identify that objects are made of one or more materials
- Describe physical Properties of matter
- Identify the particles formations of each phase – Solid, Liquid and Gas
- Some liquids separate, some solids dissolve, some dissolve more in hot water than cold water
- Identify phase changes from solid → liquid → gas and gas → liquid → solid
- Identify physical changes of matter

Earth, Moon, and Sun (1.6,2.7,3.8)

- Sun as the source of energy, 1.6
- Sun rises in east and sets in west, 1.6
- Effects of weather and seasonal changes, 2.7
- Patterns of natural events - Rotation (day and night) takes 24 hours/1 day vs. Revolution (seasons) takes 365 days/1 year,3.8
- Identify the different moon phases (new, crescent, gibbous, half, full; waxing vs. waning)
- Identify the pattern of tides (2 high and 2 low) in 24 hours/1 day. That Tides are caused by the gravitational pull of the moon and earth

Simple/Complex Machines (1.2AC, 3.2A-D)

- Motion, 1.2AC
 - Straight, circular, and back-and-forth
 - Push and pull
- Identify and name the six simple machines; uses and real-life examples of each
 - Wedge, lever, wheel and axle, screw, inclined ramp, pulley
- Identify and name complex machines are made of two of more simple machines

Plant and Animal Life Cycles (2.4, 3.8bc, 3.4ab)

- Life cycle of different animals- frog, butterfly, dragonfly
- Life cycle of different plants- apple tree, pumpkin, Virginia pine, sunflower
- Describe Animal Behaviors and Adaptations (2.7A, 3.4AB)
- Describe and explain the terms camouflage, mimicry, hibernation, migration, dormancy, instinct, and learned behavior
- Behavioral Adaptations allow animals to respond to life needs; define and explain hibernation and migration; define and explain instinct versus learned
- Physical Adaptations allow animals to respond to life needs; define and explain camouflage and mimicry;
 - Body structures; define and explain camouflage and mimicry
- Distinguish between physical and behavioral adaptations of animals

Social Studies

Civics: Government (3.11,3.12,3.13)

- Rules and laws in the school and community
- Basic Purposes of government
- Government protects the rights and property of individuals
- Life, liberty, and the pursuit of happiness, equality under the law
- Benefits of diversity- food, music and clothing
- Identify levels of government – federal, state and local government
- Describe how to be a responsible citizen
- Describe the voting process and taking part in the voting process when making decisions in the classroom
- Demonstrating self-discipline and self-reliance
- Demonstrate honesty and trustworthiness
- Describing the purpose of rules

Geography: (3.6)

- Review and identify 7 Continents and 5 Oceans
- Identify parts of maps key, le
- Describe and identify location of major rivers, mountain ranges, and other geographic features of North America:
 - Mississippi River
 - Rio Grande River
 - Rocky Mountains
 - Appalachian Mountain
 - Great Lakes
- Describe and identify location of major rivers, mountain ranges, and other geographic features of South America:
 - Amazon River
 - Andes Mountains
 - Amazon rainforest
- Describe and identify location of major rivers, mountain ranges, and other geographic features of Europe:
 - Mediterranean Sea
 - Alps Mountain
 - Italian Peninsula
- Describe and identify location of major rivers, mountain ranges, and other geographic features of Africa:
 - Nile River
 - Atlas Mountains
 - Sahara Desert
- Describe and identify location of major rivers, mountain ranges, and other geographic features of Asia:
 - Huang He River
 - Himalaya Mountains
 - Gobi Desert

Social Studies

Economics (3.7, 3.8, 3.9)

- Identify and understand the differences of needs vs. wants
- Describe and identify the differences of natural, capital, & human resources
- Describe the difference between goods and services
- Describe and identify what producers and consumers are
- Identify the difference between economic choice & opportunity cost
- Understand and identify what specialization & interdependence

Ancient Civilization

Greece (3.3, 3.5abc, 3.7, 3.8, 3.9, 3.10)

- Define
 - ancient: Long ago
 - architecture: The design of buildings
 - contribution: The act of giving or doing something
- Describe physical characteristics (mountains, hill sides, and limited rich soil) adaptations (small independent communities), human characteristics (farming, traders, and shipbuilders), arts (sculptures and pottery)
 - Ancient Greece was located on a peninsula with many islands, surrounded by the Mediterranean Sea.
- Architecture
 - Columns – Ionic, Doric and Corinthian
 - The Parthenon
- Government
 - Direct democracy- “Birthplace of Democracy” – Everyone votes on rules and laws
- Olympics – A sporting event that still occurs today

3rd Grade

Instructional Guide

Standard Yet to be

Taught in 2019 -2020

Math Standards Not Yet Taught

Measurement (3.7ab, 3.8ab, 3.9abc, 3.10)

- Estimate length to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, and meter. **(measurement to the nearest inch was taught in 2nd grade)**
- Estimate distance around a polygon in order to determine its perimeter
 - Perimeter is the path or distance around any plane figure.
- Estimate and count the number of square units need to cover the surface for area.
 - Area of a figure is the number of unit squares that cover the surface of a closed figure
- Tell time to the nearest minute. **(Time was taught in 2nd grade to the nearest 5 minutes)**
- Elapsed time in one-hour increments within a 12-hour period.
- Identify equivalent periods of time **(this skill was started in Kindergarten – 2nd grade)**
 - Questions such as: How many days in a week? How many days in a month? How many days in a year? and leap year? How many minutes in an hour? How many hours in a day? How many seconds in an hour? How many months in a year?
 - Identify the number of minutes in an hour and hours in a day, number of days in a given month (about 30), the number of days in a week, the number of days in a year, and the number of months in a year.
 - Solve problems of equivalent periods of time to include: approximate days in five or fewer months; days in five or fewer weeks; months in five or fewer years; minutes in five or fewer hours; and hours in five or fewer days.

Geometry (3.11, 3.12abc, 3.13)

- Identify and draw representations of points, lines, line segments, rays, and angles.
- Describe endpoints and vertices as they relate to lines, line segments, rays, and angles.
- Define polygons by the number of sides
 - Identify and name polygons with 10 or fewer sides
 - triangle is a three-sided polygon
 - quadrilateral is a four-sided polygon
 - pentagon is a five-sided polygon
 - hexagon is a six-sided polygon
 - heptagon is a seven-sided polygon
 - octagon is an eight-sided polygon
 - nonagon is a nine-sided polygon
 - decagon is a ten-sided polygon
 - Classify figures as polygon or not polygon
- Combine no more than three polygons where each has three or four sides and name the resulting polygon
- Subdivide a three-sided or four-sided polygon into no more than three parts and name the resulting polygon
- Identify and describe congruent and noncongruent plane figures.

Science Standards Not Yet Taught

Feeding Relationships (3.5ABC)

- Interdependent feeding relationships
 - Describe and identify producer, consumer, decomposer, herbivore, carnivore, and omnivore
 - Know the difference between predator and prey
- Food chain vs. food web
 - Infer that most food chains begin with a green plant
 - Identify the sequence of feeding relationships in a food chain. What organism eats what organism for energy in the food chain
 - Explain how a change in one part of a food chain or web might affect the rest of the food chain or web
 - Create and describe a model of a food chain showing producers and consumers

Aquatic and Terrestrial Environments (3.6ABC)

- Identify the difference between Living vs. Nonliving Things, 2.5
- Water-related environments – freshwater, salt water, marshland
 - describe major water-related ecosystems and examples of animals and plants that live in them
 - Water-related ecosystems include those with fresh water or salt water. Examples include ponds, marshes, swamps, streams, rivers, and ocean
- Dry land or terrestrial environments
 - describe major dry-land ecosystems and examples of animals and plants that live in them
 - Dry-land ecosystems include deserts, grasslands, rain forests, and forests
- Compare and contrast water-related and dry-land ecosystems
- Explain how animals and plants use resources in their ecosystem
- Predict what would occur if a population in a specific ecosystem was to die
- List ways that humans can help conserve limited resources
- Population vs. Community
 - A population is a group of organisms of the same kind that lives in the same place. Examples of a population are a flock of swans in a pond, a school of fish in a river, and a herd of cattle in the grassland
 - A community is all of the populations that live together in the same place. An example of a dry-land community would be a forest made up of trees, squirrels, worms, rabbits, and hawks. An example of a water related community would be an ocean made up of fish, crabs, and seaweed

Science Standards Not Yet Taught

Earth Resources (3.10abcd): Human and Natural Influences on Organisms

- Interdependency- explain how organisms in an area are dependent on each other
- Natural Disasters- fire, flood, disease, and erosion
 - analyze the effects of fire, flood, disease, and erosion on organisms and habitats
- Human Activity- water, air, and land pollution
 - compare and contrast human influences on the quality of air, water, and habitats
- Conservation and resource renewal, habitat management, species monitoring
 - Conservation is the careful use and preservation of our natural resources
 - Resource renewal is a conservation practice in which species are protected. An example would be protecting endangered plants by saving their seeds, growing the seeds indoors, and later putting the new plants back in their natural habitats

Water Cycle (3.9abcde)

there are many sources of water on Earth

- Identify the sun as the origin of energy that drives the water cycle the water cycle involves several processes
- Describe the processes of evaporation, condensation, and precipitation as they relate to the water cycle
 - During the water cycle, liquid water is heated and changed to a gas (water vapor). This process is called evaporation. The gas (water vapor) is cooled and changed back to a liquid. This process is called condensation. Water as a liquid or a solid falls to the ground as precipitation
 - construct and interpret a model of the water cycle
- Describe water is essential for living things and water on Earth is limited and needs to be conserved
 - explain methods of water conservation in the home and school
 - Examples turning off water when brushing teeth, taking showers instead of baths, etc
 - analyze possible sources of water pollution in their neighborhoods, at school, and in the local community. This includes runoff from overfertilized lawns and fields, oil from parking lots, eroding soil, and animal waste

Soil 3.7, 3.1

- Soil layers including bedrock, subsoil, and topsoil
 - understand the key terminology related to soil, including humus, nutrients, topsoil, and bedrock.
 - interpret and illustrate a basic diagram showing major soil layers, including bedrock, subsoil, and topsoil.
- Analyze and describe the different components of soil; including rock, clay, silt, sand, and humus
 - Explain how soil forms over time
 - design an investigation to compare how different types of soil affect
 - plant growth. This includes organizing data in tables and constructing simple graphs.
- Describe how soil is a natural resource and must be conserved and types of soil affects plant grow

Social Studies Standards Not Yet Taught

Ancient Civilization

Rome (3.3, 3.5abc, 3.7, 3.8, 3.9, 3.10)

- Define
 - ancient: Long ago
 - architecture: The design of buildings
 - contribution: The act of giving or doing something
- Describe physical characteristics (many hills and limited rich soil) adaptations (farmed on hillsides), human characteristics (farmers, traders, and road builders), arts (mosaics)
 - Ancient Rome was located by the Tiber River on a peninsula in the Mediterranean Sea
- Architecture – First to use cement and concrete for buildings
 - The Colosseum
 - Aqueducts
 - Arches
 - Domes
- Government - Republican (representative) form of government; a representative democracy
 - representative democracy: A government in which the people vote for (elect) a smaller group of citizens to make the rules and laws for everyone

Ancient Civilization

China (3.2, 3.5abc, 3.7, 3.8, 3.9, 3.10)

- Describe physical characteristics - Ancient China was located on a large land mass. The land consisted of forests, hills, mountains, and deserts. Human characteristics (farmers, fisherman, and miners), arts (pottery)
- Ancient China was located in eastern Asia centered on the Huang He River.
- Architecture –
 - The Great Wall of China
- Contribution is the act of giving
 - Written Language – characters and symbols
 - Inventions- Kite, silk cloth, compass, and fireworks

Ancient Civilization

Egypt(3.2, 3.5abc, 3.7, 3.8, 3.9, 3.10)

- Describe physical characteristics - Ancient Egypt was located along the Nile River in northeast Africa. Most of the land was desert. There was rich soil along the Nile River. Human characteristics (inventors, traders, and farmers), arts (crafts)
- Architecture –
 - Pyramids
- Contribution is the act of giving
 - Written Language – Hieroglyphics
 - Inventions- Paper made of papyrus, 365-day calendar, clock, bowling, breath mints, and toothpaste

Social Studies Standards Not Yet Taught

Ancient Civilization

Rome (3.4, 3.5abc, 3.7, 3.8, 3.9, 3.10)

- Define
 - ancient: Long ago
 - architecture: The design of buildings
 - contribution: The act of giving or doing something
- Describe physical characteristics -The West African empire of Mali was located in Africa. (Sahara Desert) Human characteristics (farmers, traders, and miners), arts(storytellers)
 - The kings of Mali were rich and powerful men who controlled trade in West Africa.
 - Mali became one of the largest and wealthiest empires in the region and was an important trade center
 - Timbuktu was an important city in Mali. It had a famous university with a large library containing Greek and Roman books
- Mali lay across the trade routes between the sources of salt in the Sahara Desert and the gold mines of West Africa.
 - For the people of the desert, salt was a valuable natural resource.
 - People used salt for health reasons and for preserving foods.
 - Miners found gold in Western Africa.
 - salt was traded for gold.