COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

UNIT/FOCUS: Water and Climate **TIMEFRAME:** 12 Weeks

Transfer

Students will be able to independently use their learning to…

- Ask questions that can be investigated and predict reasonable outcomes based on patterns such as cause and effect relationships.
- Develop and/or use models to describe and/or predict phenomena.
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.
- Evaluate appropriate methods and/or tools for collecting data.
- Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.
- Represent data in tables and/or various graphical displays (bar graphs, pictographs, and/or pie charts) to reveal patterns that indicate relationships.
- Analyze and interpret data to make sense of phenomena, using logical reasoning, mathematics, and/or computation.
- Compare and contrast data collected by different groups in order to discuss similarities and differences in their findings.
- Use data to evaluate and refine design solutions.
- Organize simple data sets to reveal patterns that suggest relationships.
- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem.
- Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design solution.
- Construct and/or support an argument with evidence, data, and/or a model.
- Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem.
- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem.

Meaning

Enduring Understandings (EUs)

Students will understand that…

- Similarities and differences in patterns can be used to sort, classify, communicate and analyze simple rates of change for natural phenomena and designed products.
- Cause and effect relationships are routinely identified, tested, and used to explain change.
- Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume.
- Natural objects and/or observable phenomena exist from the very small to the immensely large or from very short to very long time periods.
- A system can be described in terms of its components and their interactions.

Essential Questions (EQs)

Students will keep considering…

- How do the properties and movements of water shape Earth's surface and affect its systems?
- What regulates weather and climate?
- How do humans depend on Earth's resources?
- How do natural hazards affect individuals and societies?
- How do humans change the planet?
- How do particles combine to form the variety of matter one observes?
- What is a design for?
- What are the criteria and constraints of a successful solution?
- What is the process for developing potential design solutions?
- How can the various proposed design solutions be compared and improved?
- What are the relationships among science, engineering, and technology?
- How do science, engineering, and the technologies that result from them affect the ways in which people live?
- How do they affect the natural world?

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Acquisition	
Knowledge	Skills
Students will know… • Nearly all of Earth's available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. • Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next. (3-ESS2-1) • Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. • Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. • A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. • Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. • Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. • A model shows that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon; the effects of air on larger particles or objects. • Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. • Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. • At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. • Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. • Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. • Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints.	*Students will be able to…* • Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. • Obtain and combine information to describe climates in different regions of the world. • Obtain information to identify where water is found on Earth and that it can be solid or liquid. • Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. • Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. • Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. • Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. • Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. • Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Aligned Concepts, Topics, and Skills

Topics:

- Drops of Water
- Water on a Slope
- Soaking Sponges
- Water in Nature
- Measuring Temperature
- Build a Thermometer
- Sinking and Floating in Water
- Water as Ice
- Ice Outdoors
- Measuring Weather
- Evaporation
- Surface Area
- Evaporation Locations
- Condensation
- Seasonal Weather
- Describing Climate
- Weather-Related Natural Hazards
- Water in Earth Materials
- Water in Soil
- Waterwheels

Pacing Guide

- Approximately 2 weeks per investigation

21st Century Life and Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Interdisciplinary Connections

- Science and Engineering Practices
- Look for waterproof materials
- Problem of the week
- Weigh water
- Listen to water music
- Describe icy words
- Research ice in warm climates
- Research recycling water
- Measure and graph surface area
- Describe your local climate
- Investigate local water
- Research soil words

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Instructional Resources	Benchmark / Summative Assessments

• FOSS Kits
• FOSS Science Resource Books
• FOSS Online Activities
	• Investigations
	  o Water Observations
	  o Hot Water, Cold Water
	  o Weather and Water
	  o Seasons and Climate
	  o Waterworks
	• I-Checks
	• Self-Assessments
	• FOSS Post Test

Supports / Modifications for ELLs	**Supports / Modifications for Students w/ 504s and or IEPs**
• Preview content • Utilize visuals, images, actions, and talk • Scaffold development of comprehension process vocabulary AND content-specific vocabulary • Display anchor charts for language structures • Provide assessments with graphic supports • Utilize prepared sentence stems • Graphic organizers • Flexible grouping • Additional time for processing and assessment	• Differentiate content, process, product, and learning environment • Provide alternative or high interest text at student's reading level. • Provide summaries of materials for student. • Shorten assignments and assessments to focus on mastery of key concepts. • Substitute alternatives for written assignments. • Specify and review often exactly what the student will need to learn to pass. • Modify expectations based on student needs. • Provide a "designated notetaker" or photocopy of other student or teacher notes. • Provide a print copy of assignments or notes. • Go over directions orally. • Provide additional time on tests. • Read test materials to the student, and allow oral responses. • Use enlarged graph paper to write problems to help the student keep numbers in columns. • Break long-term assignments into small steps, with daily monitoring and frequent grading. • Use both oral and printed directions.

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Supports / Modifications for At Risk Students	Supports / Modifications for Gifted & Talented Students
• Review the classroom rules frequently. • Evaluate classroom structure against the student's needs (flexible structure, firm limits, etc.). • Keep workspace clear of unrelated materials. • Keep classroom quiet during intense learning times. • Reduce visual distractions in the classroom (mobiles, etc.). • Seat the student close to the teacher / instruction, and away from distractions. • Keep extra supplies of classroom materials (pencils, books) on hand. • Alert student several minutes before a transition from one activity to another is planned; give several reminders. • Reinforce (often) when a student displays positive behavior. • Develop an individualized behavior intervention plan that consistent with the student's ability and skills. • Arrange for a student to leave the classroom for a designated "safe place" when highly stressed. • Develop a system or a code word to let a student know when behavior is not appropriate. • Ignore behaviors that are not seriously disruptive.	• Provide opportunities to pursue advanced level work • Expose students to higher level thinking skills • Provide enrichment centers • pursue a self-selected interest • work in groups with students having common interests • move to a higher grade for specific subject area instruction • work with students of comparable ability across classrooms at the same grade level • work on an advanced curriculum unit on a teacher-selected topic • participate in competitive programs focusing on thinking skills/problem solving • receive concentrated instruction in critical thinking and creative problem solving

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

UNIT/FOCUS: Motion and Matter **TIMEFRAME:** 12 Weeks

Transfer

Students will be able to independently use their learning to…

- Ask questions that can be investigated and predict reasonable outcomes based on patterns such as cause and effect relationships.
- Define a simple design problem that can be solved through the development of an object, tool, process, or system and includes several criteria for success and constraints on materials, time, or cost.
- Develop and/or use models to describe and/or predict phenomena.
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.
- Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.
- Represent data in tables and/or various graphical displays (bar graphs, pictographs, and/or pie charts) to reveal patterns that indicate relationships.
- Analyze and interpret data to make sense of phenomena, using logical reasoning, mathematics, and/or computation.
- Analyze data to refine a problem statement or the design of a proposed object, tool, or process.
- Use data to evaluate and refine design solutions.
- Organize simple data sets to reveal patterns that suggest relationships.
- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem.
- Apply scientific ideas to solve design problems.
- Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design solution.
- Construct and/or support an argument with evidence, data, and/or a model.
- Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem.
- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem.

Meaning

Enduring Understandings (EUs)

Students will understand that…

- Similarities and differences in patterns can be used to sort, classify, communicate and analyze simple rates of change for natural phenomena and designed products.
- Cause and effect relationships are routinely identified, tested, and used to explain change.
- Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume.
- A system can be described in terms of its components and their interactions.
- Matter flows and cycles can be tracked in terms of the weight of the substances before and after a process occurs. The total weight of the substances does not change. This is what is meant by conservation of matter. Matter is transported into, out of, and within systems.

Essential Questions (EQs)

Students will keep considering…

- How can one predict an object's continued motion, changes in motion, or stability?
- What underlying forces explain the variety of interactions observed?
- How do particles combine to form the variety of matter one observes?
- How do substances combine or change (react) to make new substances?
- How does one characterize and explain these reactions and make predictions about them?
- What is a design for?
- What are the criteria and constraints of a successful solution?
- What is the process for developing potential design solutions?
- How can the various proposed design solutions be compared and improved?
- What are the relationships among science, engineering, and technology?
- How do science, engineering, and the technologies that result from them affect the ways in which people live? How do they affect the natural world?

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Acquisition	
Knowledge	Skills
Students will know…	*Students will be able to…*
• Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion. • The patterns of an object's motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. • Objects in contact exert forces on each other. • Electric, and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. • The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. • Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model shows that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon; the effects of air on larger particles or objects. • When two or more different substances are mixed, a new substance with different properties may be formed. • No matter what reaction or change in properties occurs, the total weight of the substances does not change. • Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. • Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. • At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. • Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. • Testing a solution involves investigating how well it performs under a range of likely conditions. • Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints.	• Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. • Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. • Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. • Define a simple design problem that can be solved by applying scientific ideas about magnets. • Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. • Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. • Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. • Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Aligned Concepts, Topics, and Skills

Topics:

- Two Forces
- Magnetic-Force Investigation
- More About Forces
- Wheel and Axle System
- Predicting Motion of New Systems
- Twirly Birds
- Tops
- From Here to There
- Distance Challenge
- Investigating Start Position
- Cart Tricks
- Mixing Solids and Liquids
- Reactions
- Metric Field Day

Pacing Guide

- Approximately 2 weeks per investigation

21st Century Life and Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Interdisciplinary Connections

- Science and Engineering Practices
- Cross-Cutting Concepts
- Brainstorm a list
- Math problem of the week
- Poems about rolling
- Compare rollers and spinners
- Draw pathways
- Write about racing
- Cartoon strip on the design process
- Motion and matter crossword puzzle

Instructional Resources

- FOSS Kits
- FOSS Science Resource Books
- FOSS Online Activities

Benchmark / Summative Assessments

- Investigations
  - Forces
  - Patterns of Motion
  - Engineering
  - Mixtures
- I-Checks
- Self-Assessments
- FOSS Post Test

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Supports / Modifications for ELLs	Supports / Modifications for Students w/ 504s and or IEPs
• Preview content • Utilize visuals, images, actions, and talk • Scaffold development of comprehension process vocabulary AND content-specific vocabulary • Display anchor charts for language structures • Provide assessments with graphic supports • Utilize prepared sentence stems • Graphic organizers • Flexible grouping • Additional time for processing and assessment	• Differentiate content, process, product, and learning environment • Provide alternative or high interest text at student's reading level. • Provide summaries of materials for student. • Shorten assignments and assessments to focus on mastery of key concepts. • Substitute alternatives for written assignments. • Specify and review often exactly what the student will need to learn to pass. • Modify expectations based on student needs. • Provide a "designated notetaker" or photocopy of other student or teacher notes. • Provide a print copy of assignments or notes. • Go over directions orally. • Provide additional time on tests. • Read test materials to the student, and allow oral responses. • Use enlarged graph paper to write problems to help the student keep numbers in columns. • Break long-term assignments into small steps, with daily monitoring and frequent grading. • Use both oral and printed directions.
Supports / Modifications for At Risk Students	**Supports / Modifications for Gifted & Talented Students**
• Review the classroom rules frequently. • Evaluate classroom structure against the student's needs (flexible structure, firm limits, etc.). • Keep workspace clear of unrelated materials. • Keep classroom quiet during intense learning times. • Reduce visual distractions in the classroom (mobiles, etc.). • Seat the student close to the teacher / instruction, and away from distractions. • Keep extra supplies of classroom materials (pencils, books) on hand. • Alert student several minutes before a transition from one activity to another is planned; give several reminders. • Reinforce (often) when a student displays positive behavior. • Develop an individualized behavior intervention plan that consistent with the student's ability and skills. • Arrange for a student to leave the classroom for a designated "safe place" when highly stressed. • Develop a system or a code word to let a student know when behavior is not appropriate. • Ignore behaviors that are not seriously disruptive.	• Provide opportunities to pursue advanced level work • Expose students to higher level thinking skills • Provide enrichment centers • pursue a self-selected interest • work in groups with students having common interests • move to a higher grade for specific subject area instruction • work with students of comparable ability across classrooms at the same grade level • work on an advanced curriculum unit on a teacher-selected topic • participate in competitive programs focusing on thinking skills/problem solving • receive concentrated instruction in critical thinking and creative problem solving

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

UNIT/FOCUS: Structures of Life **TIMEFRAME:** 12 Weeks

Transfer

Students will be able to independently use their learning to…

- Ask questions that can be investigated and predict reasonable outcomes based on patterns such as cause and effect relationships.
- Develop and/or use models to describe and/or predict phenomena.
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.
- Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.
- Represent data in tables and/or various graphical displays (bar graphs, pictographs, and/or pie charts) to reveal patterns that indicate relationships.
- Analyze and interpret data to make sense of phenomena, using logical reasoning, mathematics, and/or computation.
- Organize simple data sets to reveal patterns that suggest relationships.
- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem.
- Construct and/or support an argument with evidence, data, and/or a model.
- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem.

Meaning

Enduring Understandings (EUs)	Essential Questions (EQs)
Students will understand that…	*Students will keep considering…*
• Similarities and differences in patterns can be used to sort, classify, communicate and analyze simple rates of change for natural phenomena and designed products. • Cause and effect relationships are routinely identified, tested, and used to explain change. • Natural objects and/or observable phenomena exist from the very small to the immensely large or from very short to very long time periods. • A system can be described in terms of its components and their interactions. • Substructures have shapes and parts that serve functions.	• How do the structures of organisms enable life's functions? • How do organisms grow and develop? • What happens to ecosystems when the environment changes? • How do organisms interact in groups so as to benefit individuals? • How are the characteristics of one generation related to the previous generation? • Why do individuals of the same species vary in how they look, function, and behave? • What evidence shows that different species are related? • How does genetic variation among organisms affect survival and reproduction? • How does the environment influence populations of organisms over multiple generations? • What is biodiversity, how do humans affect it, and how does it affect humans?

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Acquisition	
Knowledge	Skills
Students will know… • Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. • Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. • When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. • Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size. • Many characteristics of organisms are inherited from their parents. Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. • Many characteristics involve both inheritance and environment. • Different organisms vary in how they look and function because they have different inherited information. • The environment also affects the traits that an organism develops. • Some kinds of plants and animals that once lived on Earth are no longer found anywhere. • Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments. • Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing. • For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. • Populations live in a variety of habitats, and change in those habitats affects the organisms living there.	*Students will be able to…* • Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. • Construct an argument that some animals form groups that help members survive. • Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. • Use evidence to support the explanation that traits can be influenced by the environment. • Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. • Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago • Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. • Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. • Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Aligned Concepts, Topics, and Skills

Topics:

- Seed Search
- Sprouting Seed
- Seed Soak
- Seed Dispersal
- Germination and Growth
- Life Cycle of the Bean
- Roots and Shoots
- Crayfish Structures
- Adaptation
- Crayfish Territory
- Compare Crayfish and other Animals
- Food Chains
- Counting Bones
- Owl Pellets
- Joints and Muscles
- Fingerprints

Pacing Guide

Approximately 3 weeks per investigation

21st Century Life and Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Interdisciplinary Connections

- Science and Engineering Practices
- Cross-Cutting Concepts
- Problem of the week
- Discuss Plant Idioms
- Research fruit in grocery stores
- Make seed art
- Book on germination
- Research staple crops around the world
- Create crayfish territorial stories
- Write about the life of a crayfish
- Make bone-facts class book
- Research skeletons

Instructional Resources

- FOSS Kits
- FOSS Science Resource Books
- FOSS Online Activities

Benchmark / Summative Assessments

- Investigations
  - Environmental Factors
  - Ecosystems
  - Brine Shrimp Hatching
  - Range of Tolerance
- I-Checks
- Self-Assessments
- FOSS Post Test

COURSE/SUBJECT: Science **LEVEL/GRADE**: 3rd

Supports / Modifications for ELLs	Supports / Modifications for Students w/ 504s and or IEPs
• Preview content • Utilize visuals, images, actions, and talk • Scaffold development of comprehension process vocabulary AND content-specific vocabulary • Display anchor charts for language structures • Provide assessments with graphic supports • Utilize prepared sentence stems • Graphic organizers • Flexible grouping • Additional time for processing and assessment	• Differentiate content, process, product, and learning environment • Provide alternative or high interest text at student's reading level. • Provide summaries of materials for student. • Shorten assignments and assessments to focus on mastery of key concepts. • Substitute alternatives for written assignments. • Specify and review often exactly what the student will need to learn to pass. • Modify expectations based on student needs. • Provide a "designated notetaker" or photocopy of other student or teacher notes. • Provide a print copy of assignments or notes. • Go over directions orally. • Provide additional time on tests. • Read test materials to the student, and allow oral responses. • Use enlarged graph paper to write problems to help the student keep numbers in columns. • Break long-term assignments into small steps, with daily monitoring and frequent grading. • Use both oral and printed directions.
Supports / Modifications for At Risk Students	**Supports / Modifications for Gifted & Talented Students**
• Review the classroom rules frequently. • Evaluate classroom structure against the student's needs (flexible structure, firm limits, etc.). • Keep workspace clear of unrelated materials. • Keep classroom quiet during intense learning times. • Reduce visual distractions in the classroom (mobiles, etc.). • Seat the student close to the teacher / instruction, and away from distractions. • Keep extra supplies of classroom materials (pencils, books) on hand. • Alert student several minutes before a transition from one activity to another is planned; give several reminders. • Reinforce (often) when a student displays positive behavior. • Develop an individualized behavior intervention plan that consistent with the student's ability and skills. • Arrange for a student to leave the classroom for a designated "safe place" when highly stressed. • Develop a system or a code word to let a student know when behavior is not appropriate. • Ignore behaviors that are not seriously disruptive.	• Provide opportunities to pursue advanced level work • Expose students to higher level thinking skills • Provide enrichment centers • pursue a self-selected interest • work in groups with students having common interests • move to a higher grade for specific subject area instruction • work with students of comparable ability across classrooms at the same grade level • work on an advanced curriculum unit on a teacher-selected topic • participate in competitive programs focusing on thinking skills/problem solving • receive concentrated instruction in critical thinking and creative problem solving