

Third Grade Science Pacing Guide

Grade 3 / Science/ Unit # 1 Weather and Climate- Trimester 1			
Time Frame	Content Focus	Skill Focus	Standards
Day 1	Background knowledge on weather and climate, model how to access <i>YouTube on Google Classroom</i> , by having students watch the read aloud <u>Cloudy with a Chance of Meatballs</u>	Describe weather and build schema, read <u>Cloudy With a Chance of Meatballs</u> and discuss weather terms, complete KWL chart	ESS2.D
Day 2	Weather and Climate powerpoint - https://docs.google.com/presentation/d/1tSemclITxkq73UFoOmKApy5GfFZ2QsLr07VtZvigk8Q/edit	Describe typical weather patterns, and describe how weather and climate are related	ESS2.D 3-ESS2-1
Day 3	Weather patterns in our area, watch <i>Brainpop</i> video on seasons, model how to access Brainpop and brainpop activities from <i>Google Classroom</i>	Observe weather in our area, walk outside and take notes of weather patterns, complete observing the weather sheet	3-ESS2-1
Day 4	Difference between weather and climate	Describe the similarities and differences between climate and weather, complete sort	ESS2.D
Days 5-9	Graphing weather from around the world, read about different weather patterns, take notes, model and practice accessing <i>Discovery Education</i> by looking at a photograph of a hurricane on a weather map	Represent weather patterns in a table, use technology to obtain information on weather patterns from around the world, choose 5 places and create graph (this will be completed throughout the year), read articles that describe various weathers, take notes using lapbook	3-ESS2-1 3-ESS2-2
Day 10	Review for quiz, practice using <i>Kahoot</i>	Describe typical weather patterns, and describe how weather and climate are	ESS2.D 3-ESS2-1

		related, describe different types of weather seen around the world	3-ESS2-2
Day 11	Weather quiz	Describe typical weather patterns, and describe how weather and climate are related, describe different types of weather seen around the world	ESS2.D 3-ESS2-1 3-ESS2-2
Days 12-13	Build weather structure , model and practice accessing <i>MysteryScience</i> from Google Classroom https://mysteryscience.com/weather/mystery-4/natural-hazards-engineering/153?r=12199102	Design a structure that will withstand a weather related hazard, students will partner up to create a structure for a wind storm, test structures and discuss how they can make it better	3-ESS3-1
Days 14-15	Weather Instruments	Design a weather instrument that will measure a chosen type of weather, complete "For Sale" worksheet	3-ESS3-1
Day 16	Review for quiz	Describe how we measure weather, and how different structures can withstand weather related hazards	3-ESS3-1
Day 17	Instruments quiz	Describe how we measure weather, and how different structures can withstand weather related hazards	3-ESS3-1
Day 18	Weather Graphing	Obtain information on weather patterns from around the world, describe typical weather patterns, quick write: Does the results of our graph match what our climate should be? Explain.	ESS2.D 3-ESS2-1 3-ESS2-2
Day 19	Review for test	Describe how we measure weather, and how different structures can withstand weather related hazards	ESS2.D 3-ESS2-1

		Describe typical weather patterns, and describe how weather and climate are related, describe different types of weather seen around the world	3-ESS2-2 3-ESS3-1
Day 20	Weather and Climate Test	Describe how we measure weather, and how different structures can withstand weather related hazards Describe typical weather patterns, and describe how weather and climate are related, describe different types of weather seen around the world	ESS2.D 3-ESS2-1 3-ESS2-2 3-ESS3-1

Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> ● Sort ● Classroom Observation ● KWL chart ● Lapbook ● Weather observation sheet ● "For Sale" worksheet ● Weather quiz ● Instrument quiz 	<ul style="list-style-type: none"> ● Quick Write ● Weather and Climate Assessment ● Structure ● Weather Tools ● Opinion Writing
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> ● https://docs.google.com/presentation/d/1tSemclITxkq73UFoOmKApy5GfFZ2QsLr07VtZvigk8Q/edit ● Lapbook ● Articles on Weather 	<ul style="list-style-type: none"> ● MysteryScience ● Storyworks magazine ● Readworks (Readworks.org) ● BrainpopJr. ● Be a Detective: Earth Science by Brenda Martin

- In a full remote learning situation - IXL 30 day free trial
- Go Formative
- Kahoot
- You Tube
- Discovery Education

Grade 3 / Science/ Unit # 2 Force and Motion Trimester 2

Time Frame	Content Focus	Skill Focus	Standards
Day 1	Tug of War	Conduct an investigation to provide evidence of the effect of balanced and unbalanced forces, play “Tug of War” Discuss ways to move the rope, discuss that while it’s laying on the floor there is a balanced force, Model tug of war and discuss how the rope moves because of unbalanced forces and not move because of balanced forces	3-PS2-1
Days 2-3	What makes things move?	Describe how things can move, read Science Book pgs. B34-37, and “Forces Make Things Move”, complete questions, Bill Nye clip	3-PS2-1 3-PS2-2
Days 4-5	Force and Motion Investigation https://betterlesson.com/lesson/632779/force-and-motion-investigation	Observe an object’s movement based on how much force was used	3-PS2-1 3-PS2-2

Days 5-6	Motion Stations	Provide evidence that a pattern can be used to predict future motion 4 stations: stop the ball, keep ball straight, straight then backwards, straight then turn; Groups will share what they built, discussion on how changes in force can change the motion of an object	3-PS2-2
Days 7-8	Gravity	Provide evidence that a pattern can be used to predict future motion- Gravity - video (Crash Course Kids Defining Gravity 4.1), read Science book pgs. B38-B39, Bill Nye/Brain Pop Jr	3-PS2-1 3-PS2-2
Day 9	Falling Objects Investigation	Observe an object's movement to model gravitational pull, use two objects of different mass and drop them at the same time, discuss what students notice and complete worksheet, watch video of feather and hammer drop on moon https://www.youtube.com/watch?v=MqJoobBvKBk	3-PS2-2
Days 10-15	Mystery Science Mystery 3: Balance of Forces, Friction <i>How can you go faster down a slide?</i>	Provide evidence that a pattern can be used to predict future motion, complete Mystery Science Activity and questions	3-PS2-1 3-PS2-2
Days 16-18	Force and Motion Lapbook	Describe the effects of unbalanced and balanced forces, describe how patterns can be used to predict future motion	3-PS2-1 3-PS2-2
Day 19	Review Test	Describe the effects of unbalanced and balanced forces, describe how patterns can be used to predict future motion	3-ESS3-1

Day 20	Force and Motion Test	Describe the effects of unbalanced and balanced forces, describe how patterns can be used to predict future motion	3-PS2-1 3-PS2-2
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Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> ● Questions from Book ● Classroom Observation ● Falling objects worksheet ● Lapbook ● BrainpopJr. worksheets 	<ul style="list-style-type: none"> ● Quick Writes ● Force and Motion Assessment ● Structures ● Mystery Science activity
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> ● Lapbook ● Science Book 	<ul style="list-style-type: none"> ● MysteryScience ● Storyworks magazine ● Readworks (Readworks.org) ● BrainpopJr. ● https://www.youtube.com/watch?v=MqJoobBvKBk ● Science Book ● Youtube videos ● <i>Forces Make Things Move</i>, Book ● <i>Motion: Push and Pull, Fast and Slow</i>, Book ● Force and Motion sets ● Be a Detective: Physical Science by Brenda Martin ● In a full remote learning situation, IXL 30 day free trial ● Kahoot ● Discovery Education

Grade 3 / Science/ Unit # 3 Electrical and Magnetic Forces Trimester 2

Time Frame	Content Focus	Skill Focus	Standards
Day 1	What are magnets?	Ask questions to determine cause and effect of magnets, complete questionnaire to build schema, watch brainpopJr video https://amandarussell71.files.wordpress.com/2012/11/magnet-questionnaire.pdf	3-PS2-3
Day 2	What makes a magnet?	Ask questions to determine cause and effect of magnets, read magnet book, discuss	3-PS2-3
Day 3	Magnetic Scavenger Hunt	Observe the cause and effect relationship between magnets https://amandarussell71.files.wordpress.com/2012/11/magnet-classification-chart.pdf https://amandarussell71.files.wordpress.com/2012/11/magnet-discussion-questions.pdf	3-PS2-3
Day 4	Magnets and Poles: Activity 1	Observe the cause and effect relationship between magnets, discuss poles and the magnetic attraction between them	3-PS2-3
Day 5	Going through solids and liquids: Activity 3	Observe the cause and effect relationship between magnets, describe the magnetic field and pull when going through liquids and solids	3-PS2-3
Day 6	Strength Test: Activity 5	Observe the cause and effect relationship between magnets, use different magnets to test magnetic fields, complete worksheet	3-PS2-3

Days 7-10	Mystery Science Mystery 5: Magnets & Engineering <i>How can you unlock a door using a magnet?</i>	Design a solution to a problem using magnets, students will create a door that can lock and unlock using magnet	3-PS2-3 3-PS2-4 3-5-ETS1-1
Days 11-12	I Need a Magnet! https://betterlesson.com/lesson/639709/i-need-a-magnet	Solve a real-world problem using magnets	3-PS2-3 3-PS2-4 3-5-ETS1-1
Day 13	Review Quiz	Ask questions to determine cause and effect of magnets, read magnet book Describe the cause and effect relationship between magnets	3-PS2-3 3-PS2-4 3-5-ETS1-1
Day 14	Magnetism Quiz	Ask questions to determine cause and effect of magnets, read magnet book Describe the cause and effect relationship between magnets	3-PS2-3 3-PS2-4 3-5-ETS1-1
Day 15	Experimenting with Static https://betterlesson.com/lesson/637731/experimenting-with-static?from=search	Observe cause and effect relationship of electric interaction	3-PS2-3 3-PS2-4 3-5-ETS1-1
Day 16	ElectroMagnets https://betterlesson.com/lesson/638162/electromagnets?from=search	Observe cause and effect relationship of electric interaction	3-PS2-3 3-PS2-4 3-5-ETS1-1
Day 17	Review for Test	Ask questions to determine cause and effect of magnets, read magnet book Describe the cause and effect relationship between magnets	3-PS2-3 3-PS2-4

			3-5-ETS1-1
Day 18	Electrical and Magnetic Forces Test	Ask questions to determine cause and effect of magnets, read magnet book Describe the cause and effect relationship between magnets	3-PS2-3 3-PS2-4 3-5-ETS1-1

Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> ● Classroom Observation ● Worksheet from activities ● Lapbook ● BrainpopJr. Worksheets ● Quizzes 	<ul style="list-style-type: none"> ● Quick Writes ● Electrical and Magnetic Forces Assessment ● I Need a Magnet activity ● Mystery Science activity
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> ● Lapbook ● Science Book ● https://amandarussell71.wordpress.com/lessons/ 	<ul style="list-style-type: none"> ● MysteryScience ● Storyworks magazine ● Readworks (Readworks.org) ● BrainpopJr. ● Electromagnets ● Static Electricity ● I Need a Magnet ● Science Book ● Youtube videos ● What is Magnetism book ● Classroom Attractions set ● Be a Detective: Physical Science by Brenda

- Martin
- Go Formative
- Kahoot
- In a full remote learning situation, IXL 30 day free trial
- Discovery Education

Grade 3 / Science/ Unit # 4 Traits Trimester 3

Time Frame	Content Focus	Skill Focus	Standards
Day 1	Traits background knowledge, book	Analyze evidence that plants and animals have traits inherited from parents, use discussion and read a book to schema	3-LS3-1
Day 2-3	Mammals and their parents- perfect together https://betterlesson.com/lesson/623417/mammals-and-their-parents-perfect-together	Analyze evidence that plants and animals have traits inherited from parents, view pictures of various animal groups and discuss what they notice, complete lesson	3-LS3-1
Day 4-5	What does a walrus do when the ice is gone? https://betterlesson.com/lesson/630446/what-does-the-walrus-do-when-the-ice-is-gone	Analyze evidence that plants and animals have traits inherited from parents, use evidence to support the claim that traits can be affected by environment, read articles and discuss	3-LS3-1 3LS3-2
Day 6-7	Socratic Circles in Science https://betterlesson.com/lesson/630502/socratic-circles-in-science?from=login	Analyze evidence that plants and animals have traits inherited from parents, use evidence to support the claim that traits can be affected by environment	3-LS3-1 3-LS3-2
Day 8-11	Mystery Science: Mystery 8 How Long Can People and Animals Survive in	Examine how traits can be affected by environment	3-LS3-2

	Outer Space?		
Day 12	Test Review	Analyze evidence that plants and animals have traits inherited from parents, use evidence to support the claim that traits can be affected by environment	3-LS3-1 3-LS3-2
Day 13	Test	Analyze evidence that plants and animals have traits inherited from parents, use evidence to support the claim that traits can be affected by environment	3-LS3-1 3-LS3-2

Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> • Classroom Observation • Worksheet from activities • BrainpopJr. Worksheets • Quizzes 	<ul style="list-style-type: none"> • Quick Writes • Traits Assessment • Final animal investigations project
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> • Science Book 	<ul style="list-style-type: none"> • MysteryScience • Storyworks magazine • Readworks (Readworks.org) • BrainpopJr. • Mammals and Parents • What does a walrus do when the ice is gone • Socratic Circle • Science Book • Youtube videos

- Be a Detective: Life Science by Brenda Martin
- Go Formative
- Kahoot
- In a full remote learning situation, IXL 30 day free trial

Grade 3 / Science/ Unit #5 Continuing the Cycle Trimester 3

Time Frame	Content Focus	Skill Focus	Standards
Day 1	Plant Life Cycle BrainpopJr, Science book A20-25	Describe how organisms have a diverse life cycle; watch video on BrainpopJr., read Science book pgs. A20-25	3-LS1-1
Days 2-3	Mystery Science Mystery 1: Flowering and Reproduction <i>Why do plants grow flowers?</i>	Build a model that describes a plant's life cycle; complete Mystery Science Activity	3-LS1-1
Day 4-6	Build a terrarium	Build a model that describes a plant's life cycle; build terrarium and track plant's growth over a couple of days https://jr.brainpop.com/science/plants/plantlife/cycle/activity/	3-LS1-1
Days 7-8	Mystery Science Mystery 3: Why are some apples red and some green?	Explain how plants have variations of characteristics; complete Mystery Science Activity	3-LS1-1 3-LS4-2
Day 9	Test Review	Describe how organisms have a diverse life cycle; Explain how plants have variations of characteristics;	3-LS1-1 3-LS4-2

Day 10	Test	Describe how organisms have a diverse life cycle; Explain how plants have variations of characteristics;	3-LS1-1 3-LS4-2
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Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> • Classroom Observation • Worksheet from activities • BrainpopJr. Worksheets • Quizzes 	<ul style="list-style-type: none"> • Quick Writes • Assessment • Final animal investigations project
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> • Science Book 	<ul style="list-style-type: none"> • MysteryScience • Storyworks magazine • Readworks (Readworks.org) • BrainpopJr. • Science Book • Youtube videos • Be a Detective: Life Science by Brenda Martin • Go Formative • Kahoot • In a full remote learning situation, IXL 30 day free trial • Discovery Education

Grade 3 / Science/ Unit #6 Organisms and the Environment Trimester 3

Time Frame	Content Focus	Skill Focus	Standards
Day 1	Animal Adaptations Science book A66-69	Construct an argument that some animals live in groups to survive; some animals survive better in certain habitats; read and complete activities in Science book pgs. A66-69	3-LS2-1 3-LS4-3
Days 2-3	Nearpod - Animal Adaptations	Construct an argument that some animals live in groups to survive; some animals survive better in certain habitats; complete Nearpod activity	3-LS2-1 3-LS4-3
Day 4-5	Scholastic News: Spying on Polar Bears and activity	Construct an argument that Polar Bears survive better in colder environments; read and complete Scholastic News activity	3-LS4-3
Days 6-8	Mystery Science Mystery 6: Animal Groups & Survival <i>Why do dogs wag their tails?</i>	Observe other social animals and construct an explanation of how living in groups helps these animals survive	3-LS4-3 3-LS4-2

Day 9	Survival Characteristics Tasks Cards	Construct an argument that provides evidence on how different animals survive	3-LS2-1 3-LS4-3 3-LS4-2
Day 10	Review for Test	Construct an argument that some animals live in groups to survive; some animals survive better in certain habitats	3-LS2-1 3-LS4-3 3-LS4-2
Day 11	Test	Construct an argument that some animals live in groups to survive; some animals survive better in certain habitats	3-LS2-1 3-LS4-3 3-LS4-2

Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> • Classroom Observation • Worksheet from activities • BrainpopJr. Worksheets • Nearpod • Task Cards • Quizzes 	<ul style="list-style-type: none"> • Quick Writes • Assessment • Final animal investigations project
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> • Science Book 	<ul style="list-style-type: none"> • MysteryScience • Storyworks magazine • Readworks (Readworks.org) • BrainpopJr. • Science Book • Youtube videos • Be a Detective: Life Science by Brenda Martin

- Go Formative
- Kahoot
- In a full remote learning situation, IXL 30 day free trial
- Discovery Education

Grade 3 / Science/ Unit #7 Using Evidence to Understand Change in Environments Trimester 3

Time Frame	Content Focus	Skill Focus	Standards
Day 1	How environments change Science Book A86-89	Analyze how environments change and how that affects the plants and animals that live there, read and complete activities in Science Book pgs. A86-89	3-LS4-4
Days 2-3	Mystery Science Mystery 1: Habitats, Fossils, and Environments over time <i>Where can you find whales in a desert?</i>	Investigate how fossils reveal changes in habitat through time; complete Mystery Science activity	3-LS4-1 3-LS4-4 3-5-ETS1-1
Day 4-6	Changes in an Environment	Develop a solution to a problem caused when the environment changes and the types of plants and animals that live there may change; students will choose an animal task	3-LS4-4

		card then complete one of the writing activities	
Day 7	Brainpop jr. Fossils	Analyze how fossils provide evidence of organisms and the environment they lived in long ago; watch BrainpopJr video and quiz-Quick Write: Imagine you are a paleontologist. Write a diary entry describing a day in your life.	3-LS4-1
Days 8-9	Fun with Fossils Centers	Analyze and interpret data from fossils Center 1: Identify a fossil Center 2: Make a fossil Center 3: Excavate a fossil Center 4: Fossil Mix-up	3-LS4-1 3-5-ETS1-1
Days 10-12	Mystery Science Mystery 2: Structures & Adaptations, Fossil Evidence, Classification <i>How do we know what dinosaurs looked like?</i>	Use data to infer what dinosaurs looked like based on their fossils; complete Mystery Activity	3-LS4-1 3-5-ETS1-1
Day 11	Review for Test	Analyze how environments change and how that affects the plants and animals that live there; Develop a solution to a problem caused when the environment changes and the types of plants and animals that live there may change; Analyze how fossils provide evidence of organisms and the environment they lived in long ago	3-LS4-1 3-LS4-4
Day 12	Test	Analyze how environments change and how that affects the plants and animals that live there; Develop a solution to a problem caused when the environment changes and	3-LS4-1 3-LS4-4

		the types of plants and animals that live there may change; Analyze how fossils provide evidence of organisms and the environment they lived in long ago	
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Formative Assessment Plan	Summative Assessment Plan
<ul style="list-style-type: none"> ● Classroom Observation ● Worksheet from activities ● BrainpopJr. Worksheets ● Center Work ● Quizzes 	<ul style="list-style-type: none"> ● Quick Writes ● Fossils Assessment ● Final animal investigations project
Main Resources	Supplementary Resources
<ul style="list-style-type: none"> ● Science Book 	<ul style="list-style-type: none"> ● MysteryScience ● Storyworks magazine ● Readworks (Readworks.org) ● BrainpopJr. ● Science Book ● Youtube videos ● Be a Detective: Life Science by Brenda Martin ● Go Formative ● Kahoot ● In a full remote learning situation, IXL 30 day free trial ● Discovery Education

Appendix

Weather and Climate

Day 1 - Read Cloudy with a Chance of Meatballs, KWL chart,

Day 2 - Weather and Climate powerpoint

Day 3 - walk and observe our weather, complete observing the weather sheet

Day 4 - difference between weather and climate, sort

Days 5-11 - weather graphing, read weather articles and complete lapbook

Day 12 - review for quiz

Day 13 - quiz

Days 14-16 choose a type of weather, build a structure that will hold up in that weather with partners

Days 17-19 - Weather instruments - create something that will measure a type of weather of your choice, how does it work?
Complete For Sale Weather Tools worksheet, Introduce each type of weather instrument

Day 20 - review for quiz

Day 21 - quiz

Day 22 - go over results from weather graphing, quick write: Does the results of our graph match what our climate should be?
Explain.

Day 23- review for test

Day 24 - test

Forces and Interactions

<https://mysteryscience.com/forces/mystery-1/forces/111?r=12199102>

<https://mysteryscience.com/forces/mystery-3/balance-of-forces-friction/44?r=12199102>

<https://mysteryscience.com/forces/mystery-5/magnets-engineering/151?r=12199102>

<https://betterlesson.com/lesson/632779/force-and-motion-investigation>

<https://amandarussell71.wordpress.com/lessons/>

Day 1 - Tug of War

- Discuss ways to move the rope, discuss that while it's laying on the floor there is a balanced force
- Model tug of war and discuss how the rope moves because of unbalanced forces and not move because of balanced forces

Day 2 - Science book B34-37, answer questions (graded), Bill Nye clip

Day 3, 4 - powerpoint, force and motion investigation

- <https://betterlesson.com/lesson/632779/force-and-motion-investigation>

Days 5, 6 - 4 stations: stop the ball, keep ball straight, straight then backwards, straight then turn

- Groups will share what they built, discussion on how changes in force can change motion of an object

Day 7 - Gravity - video (Crash Course Kids Defining Gravity 4.1), read Science book and answer questions, Bill Nye/Brain Pop Jr

Day 8 - Falling Objects investigation

Day 9 - Lapbook

Day 10 - review for quiz

Day 11 - quiz

Day 12 - What are magnets? Questionnaire <https://amandarussell71.files.wordpress.com/2012/11/magnet-questionnaire.pdf>

Day 13 - Magnet Scavenger Hunt

<https://amandarussell71.files.wordpress.com/2012/11/magnet-classification-chart.pdf>

<https://amandarussell71.files.wordpress.com/2012/11/magnet-discussion-questions.pdf>

Days 14, 15 - Science Book

Day 16, 17- Mystery Science- How do you unlock a door with magnets?

Day 18 - review for test

Day 19 - test

Animal and Plant Life cycles

Day 1- Video on animal adaptations and discussion

Day 2 - Brainpop Video and quiz - plant life cycle, begin terrarium

Day 3- finish terrarium

Day 4 - Brainpop videos on animal life cycles and quiz

Day 5 - Apple Taste test - mystery science

Day 6 - Fossils - ask Sharon to come in