

Science Experiences That Come To You™

## K-5 Lesson Catalog Aligned to North Carolina Essential Standards

### Kindergarten Programs

- Choose the Force© K.P.1, K.P.1.2
  - Key Topics: Forces & motion, viscosity, air pressure Have FUN as we explore the fast-paced world of forces & motion! Investigate the viscosity of liquids & discover how air pressure works using our exciting suction cups. Compete in a race like never before & take home a molecule race track to keep!
- Scientifically Science© K.P.2.1, K.P.2.2
   Key Topics: Properties of matter, magnetism
   Have FUN as we watch properties of matter change right before our eyes! We'll shake things up as we get hands-on with our matter mixup, investigate with REAL magnifying glasses, and explore magnetism! From floating rings to bubbling potions, we'll uncover the mystery of why matter matters!
- Weather Wizards© K.E.1.1–1.3
   Key Topics: Seasons, thunder, lightning, weather patterns
   The forecast for the day is FUN as students transform into minimeteorologists! We'll discover the science behind our Planet's incredible weather systems as we uncover the reason for the seasons. Winter, Spring, Summer, Fall...this program has it ALL as we experience thunder, go ice cube fishing, touch lightning & more!
- Survive & Thrive© K.L.1.1, K.L.1.2 Key Topics:
  - Prepare to embark on a WILD scientific adventure as we investigate the traits and characteristics that make the animal kingdom so diverse! Discover what makes fur, feathers, bird beaks, and blubber so amazing! Make a birds nest to keep and much more!



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### First Grade Programs

- Invisible Forces© -1.P.1
  - Key Topics: Push/pull, inertia, magnetism Discover the invisible forces of air pressure and magnetism! Prepare to push the pedal to the metal as we hold our very own magnetic car race! Find out what tricks we have up our sleeve as we get the job done learning about inertia, push and pull & more!
- Zoom to the Moon© 1.E.1.1, 1.E.1.2

  Key Topics: Earth-Moon-Sun system, phases of the moon
  Discover the patterns of our living planet! Have FUN as we reach for
  the sky and get a feel for the clouds...literally! Make a real impact as
  we become Crater Makers & find out how delicious the phases of the
  moon can be. We'll study the planets, the Moon, eclipses & more
  through FUN, hands-on investigations.
- EarthWorks© -1.E.2.1, 1.E.2.2

  Key Topics: Rocks, minerals, gem panning
  Get the "dirt" on Earth's underground layers and apply the pressure
  as we create our own igneous rock! We'll go on a gem panning
  expedition & uncover Earth's hidden treasures of real gems, rocks &
  minerals! Students transform into mini-geologists as they sort, test &
  investigate all that they find. Everything you find...you keep!
- NC & Me© 1.L.1.1-1.3
   Key Topics: Native plants/animals, ecosystems, habitats
   Discover the incredible science of the state we call home. From photosynthesis to habitats, we'll learn about the native plants & animals that call NC their home. We'll dissect the relationship between predator/prey with the help of some N.C. owls! From Mountains to the Sea, we'll get a hands-on look at timber lines & vegetative zones, dive into some cool coastal science & more!
- Primarily Plants© -1.L.2.1, 1.L.2.2
   Key Topics: Photosynthesis, chlorophyll, seed science
   Turn your class into smarty plants as we find out what all plants need to survive & thrive on our planet. Explore the world's ecosystems, the five laws of nature, different types of seeds & how they all play their part in nature's delicate balance. Discover osmosis & diffusion and get a hands-on look while extracting real chlorophyll!



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### Second Grade Programs

• Sounds Like FUN© - 2.P.1.1, 2.P.1.2

Key Topics: Sound waves, vibrations, eardrum building Do you hear what I hear? It's the sweet sound of science! Have FUN as we tune into different types of sound and discover how sound travels through different elements. Students will pick up good vibrations as they get hands-on with sound waves, make salt dance, send water flying & build their very own ear drum to keep!

- What's the Matter© 2.P.2.1–2.3
  - Key Topics: Solids & liquids, chemical reactions, Space Mud This field trip focuses on what really matters...hands-on FUN! Get ready for a hands-on property party celebrating matter & the changes it makes! Have FUN with the properties of solids & liquids as we race 'em, spread 'em, and mix 'em. Start your engines & join the molecule races, explore evaporation rates & create real chemical reactions that you get to take home! This programs includes the HTHT fan-favorite, Space Mud!
- Weather or Not© 2.E.1.1-1.4
  - Key Topics: Weather tools, wind chill, atmospheric science Calling all future-meteorologists! Have FUN as we explore the many different types of weather that affect our planet. Brrr...it's time to bundle up as we make our own wind chill! Discover how weather conditions can change & what affects our local weather each day. Students will learn though hands-on investigation as they make their own bubble atmosphere, experiment with wind bags, make anemometer pinwheels & more!
- Cycle Babble© 2.L.1.1–2.2, 2.L.2.1–2.2
   Key Topics: Animal life cycles, metamorphosis, heredity
   When it comes to science, sometimes there's a change in plans!
   Have FUN as we investigate the life cycle & witness some of Mother
   Nature's coolest magic acts via metamorphosis. From birth to adult,
   these animals prove that growing up is FUN to do! Follow a ladybug
   as it grows up, build your own edible cocoon, spin a spider web &
   more!



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### Third Grade Programs

#### Newton in a Nutshell© - 3.P.1.1–1.3

Key Topics: Forces & motion, energy, gyroscopes We all have potential...potential & kinetic energy that is! Your class will get ramped up as students get hands-on with a few incline plane antics. Our gyroscopes will have everyone going in circles! Prepare your students to be transformed into junior physicists as they discover inertia and motion with our Fun Flicks & more!

#### • Matter Matters© - 3.P.2.1-2.3

Key Topics: States of matter, chemical change It's just a matter of time until your classroom transforms into a scientific laboratory! Get ready to investigate the properties of matter including solids, liquids & gases. Find out exactly why matter matters as we discover bubbling potions, watch air take up space, & more! Chemical reactions have never tasted so good as we make our own science ice cream...YUM!

#### The Heat is On© - 3.P.3.1, 3.P.3.2

Key Topics: Heat transfer, conduction, light absorption Things are about to heat up as we investigate the transfer of energy! Have FUN as we get energized & discover how light and heat absorb & reflect. Become conductors as we encounter heat transfer, conduction, friction & more!

#### Cosmic Capers© - 3.E.1.1, 3.E.1.2

Key Topics: Earth-Moon-Sun, sundials, constellations 3..2..1..BLAST OFF! Get ready to shoot for the stars as we discover our planet, the moon & our sun system. Students will learn how to keep time using the sun as they make their own sundial clocks. Get hands-on with the patterns of the night sky constructing your very own constellation, make glow-in-the-dark Space Mud and more!

#### • Earthscapades© - 3.E.2.1, 3.E.2.2

Key Topics: Landforms, plate tectonics, 3D coral reefs
This field trip is erupting with FUN as we investigate Earth's dramatic landforms. Your students will transform into mini-geologists as they study lands around the globe- from the tops of majestic mountains to the depths of mysterious caves, and everything in between. Set out to find the facts on natural acts as we get a hands-on look at earthquakes, volcanoes & more! Finally, we'll get the beef on coral reefs as students make their own 3-D Living Reef to keep!

The Body Shop© - 3.L.1.1, 3.L.1.2
 Key Topics: Human systems, digestion, real organ models



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Discover the systems of the human body. Have fun as we explore digestion, our reflexes and more! Learn about our blood cell factory, put on gloves like doctors, and touch real cow guts!

Smarty Plants© - 3.L.2.1–2.4
 Key Topics: Botany, seed dissection, terrariums
 Prepare to get all the "seedy" facts as we dig into the fascinating world of botany.
 Have FUN as we study the science of soil & find out how delicious dirt can truly be! Get a hands-on look at real earthworms, dissect a seed, make & take home a pollen catcher. Build your very own working terrarium to keep!



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### Fourth Grade Programs

• Edison's Workshop© - 4.P.1.1–1.2, 4.P.3.1–3.2
Key Topics: Electricity, magnetism, electroscopes
Find out all of the current science on electricity & magnetism as
students explore Edison's inventions! They'll get to build their own
electroscope to take home, get hands-on with static & current
electricity, and have FUN with our electromagnets! Discover the
shocking facts experimenting with our lightning globe & more!

#### • Dig It© - 4.P.2.1–2.3

Key Topics: Geology, mineral classification, gemstone mining Students will become junior geologists for the day & find out why science really rocks! Set out on a mining expedition as we go searching for rocks, minerals, & real gemstones. But the FUN doesn't stop there...students will dig deeper, perform 6 different geological tests, and then classify their findings! Everything you find...you keep!

- It Doesn't Phase Me© 4.E.1.1, 4.E.1.2

  Key Topics: Phases of the moon, eclipses, craters

  Calling all future astronomers! We're blasting off for an out-of-thisworld odyssey to study the causes of day and night. Take a bite out
  of the 8 different phases of the moon and have FUN as we make a
  real impact becoming crater makers. Get up close and hands-on with
  solar & lunar eclipses, the planets, and our solar system!
- Jurassic Classic© 4.E.2.1–2.3
   Key Topics: Fossils, paleontology, erosion & volcanoes
   A field trip of prehistoric proportions! Transform your classroom into an exciting dig-site as we become mini-paleontologists & examine a variety of REAL fossils. Students will get hands-on with earthquakes, volcanoes, and erosion to learn how the Earth's landscape has changed since the dawn of the dinosaur. Students will make their very own fossil to take home as a super souvenir to their Jurassic journey!
- Extreme Scene© 4.L.1.1–1.4
   Key Topics: Adaptations, biomes, igloo-building, bioluminescence
   Journey though the Earth's extreme environments! From super cold
   to super deep, we'll discover the amazing adaptations that help
   animals to survive & thrive in their ever-changing habitats. Have FUN
   as we shine some light on bioluminescence, build an igloo, and more!
- Nutty Nutrients© 4.L.2.1, 4.L.2.2
   Key Topics: Nutrition, vitamins, "My Plate" science



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Get the essentials as we take a bite out of nutrition & learn why they say, "you are what you eat!" Discover the satisfying science behind vitamins, minerals, exercise, and why your body needs them. Learn how making healthy choices part of your daily routine can be FUN as we see what Vitamin C is all about. Explore, "My Plate", as we examine the food groups, go on a starch march, and become fat testers!



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### Fifth Grade Programs

- Forced to Change© 5.P.1.1-1.4
  - Key Topics: Force & motion, kinetic energy, gyroscopes Find out why things are forced to change as we discover how different forces can change motion with our bicycle gyroscope. Join in the FUN as we examine inertia, motion and the potential of kinetic energy! Prepare to get the job done with push, pull & more!
- Energy & Me© 5.P.2.1–2.3, 5.P.3.1–3.2

  Key Topics: Heat, solar power, UV light, water cycle

  Join us as we shed some light on what happens when energy and
  matter collide. Have FUN as we heat things up investigating the

  Sun's energy and learn the basics of solar power. Students will get a
  hands-on look at our planet's water cycle, erosion, and reach for the
  sky as they touch a cloud! Get energized as we mix up a chemical
  concoction, explore the electromagnetic spectrum, and go on a
  search for Ultra Violet light!
- Meteorology Madness© 5.E.1.1–1.3
   Key Topics: Weather systems, tornadoes, hurricanes
   The forecast for the day is FUN as students transform into minimeteorologists. Map out the facts as we investigate our planet's unpredictable weather patterns. Prepare to feel the pressure...the air pressure that is! Experience the winds of change as we get an upclose & hands-on look at changing conditions while experimenting with tornadoes, hurricanes, thunder, and lightning!
- All Systems Go© 5.L.1.1, 5.L.1.2
  Key Topics: Human body systems, respiration, digestion
  Investigate the wonders of the human body from the inside out!
  Students will have FUN studying the structures & systems of the human body and discover how they all come together to create one bodacious body machine. From brains to blood cells, students will gain a whole new "funderstanding" of their own body as they find out what makes them tick! Set out on a quest to digest, expand your knowledge of the respiratory system, get hands-on with real organs, and make your very own spinal column!
- Eco-Safari© 5.L.2.1–2.3

  Key Topics: Ecosystem interdependence, food chains
  Are you ready to explore Earth's more incredible ecosystems?

  Students will set out on a scientific safari to discover the amazing habitats that can be found across our planet and the wild animals that



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call it home! Have FUN as you build your very own rainforest, your own coral reef & much more!

• DNA is Here to Stay® - 5.L.3.1, 5.L.3.2

Key Topics: Genetics, heredity, fingerprinting, DNA modeling
Dive into the gene pool & discover why DNA is here to stay! Learn
about our unique fingertip patterns and how we have certain traits
that are passed down by our parents. Explore the fascinating world of
dermatoglyphics and discover what makes you genetically unique
and genetically different from everyone else. From ancient dinosaurs
to newly discovered insects, we'll investigate how organisms can be
related and completely different. Watch as your class bonds over
genetics and takes a bite out of delicious DNA!