

HOW DOES IT GROW?

Grades K & 1 - Can you believe how much your students grow in one year? Neither can we! Growth is a great topic for exploring what living things need to grow and survive. Build a window greenhouse for a seed. (45 min)

ND Science Standards: K-PS3-1; K-LS1-1; 1-LS1-1

WHAT'S THE MATTER?

Grades K, 1 & 2 - Explore the properties of the matter and make some fascinating discoveries about how matter changes. Investigate solids, measure liquids, and observe gases that fizz and bubble. Students will make slime, a non-Newtonian fluid and take it home. (45 min)

ND Science Standards: 2-PS1-1, 2, 4

SUN, MOON, AND STARS

Grades 1 & 2 – What causes day and night? Why can we see different constellations at different times of the year? Ever wonder why the Sun only appears during the day but the moon can appear day or night? Students become astronomers as they build a pocket solar system, see the stars, investigate the moon, and make a constellation. (45 min)

ND Science Standards: 1-PS4-2; 1-ESS1-1

MAGNIFICENT MAGNETS

Grades 1, 2 & 3 - From the refrigerator door to rollercoasters - magnets are everywhere! But what exactly is a magnet? Students explore magnetism as they observe how magnets interact with each other, make a flying kite, a maze, and a compass. (45 min)

ND Science Standards: 3-PS2-1; 3-PS2-3, 4

FINCHES AND CODING

Grades 2 & up - Learn the basics of coding with our Finch robots. Robots will follow lines and perform other programmed tasks, based on how the student progresses. Depending on age range and skill level, several concepts will be introduced using this whimsical bird. (60 min)

ND Science Standards: 4-PS4-3 / ND Computer Science & Cybersecurity Standards: ES.DD.1

PAPER STRUCTURES

Grades 2 & up - Student engineers will be challenged to construct the tallest freestanding structure that they can in a limited amount of time and with a limited amount of supplies. (45 min)

ND Science Standards: 3-ESS3-1; 4-ESS3-2; 5-ET1-3

LITTLEBITS AND ELECTRICITY

Grades 3 & up - Learn how electrons flow and explore the basics of circuitry and electric engineering with littleBits electronic building blocks. (45 min)

ND Science Standards: 4-PS3-2, 4

CANDY SKYSCRAPERS

Grades 3 & up - Challenge your construction engineers with this sweet skyscraper-building workshop. Students analyze the strength of different shapes, collect data, and use their observations to construct a sturdy building that can withstand the forces of nature. (60 min)

ND Science Standards: 3-ESS3-1; 3-ET1-2,3; 4-ESS3-2; 4-ET1-1, 2, 3; 5-ET1-1, 2, 3

BUCKET TOWERS

Grades 3 & up - Students will collaborate in groups to design a tower that is sturdy and strong. Each tower will be put to the test - how many washers can we add before the tower collapses? Learn about 3D shapes, variables, and construction engineering. (60 min)

ND Science Standards: 3-ET1-1, 3; 4-ET1-3; 5-ET1-3

MARBLE ZIPLINES

Grades 3 & up - Fight gravity in this STEM workshop designed to challenge your best engineers. Can you work as a group to build a safe yet fast zip line for a marble passenger? Use your math and engineering skills to safely deliver your marble to the landing zone. (60 min)

ND Science Standards: 3-PS2-1, 2; 3-ET1-1; 4-ET1-1, 2, 3; 4-PS3-1; 5-ET1, 2, 3

DISSECTION (OWL PELLETS)

Grades 4 & up – Introductory dissection activity that helps students understand predator-prey relationships and the food cycle. Identify an owl pellet’s content, record and analyze data. (45 min) **Non-refundable materials fee of \$50 and 4 weeks advanced booking required.*

ND Science Standards: 4-LS1-1, 5-LS-2-1

FORENSICS

Grades 4 & up – Work as forensic investigators and use techniques of forensic science to analyze evidence left behind at a crime scene. Use deductive reasoning to evaluate fingerprints, chromatography, fibers, smells, liquids, and powders to determine the criminal’s identity. (60 min)

ND Science Standards: 4-LS1-1; 5PS1-2, 3

GRADES 6-8



FINCHES AND CODING

Learn the basics of coding with our Finch robots. Robots will follow lines and perform other programmed tasks, based on how the student progresses. Depending on age range and skill level, several concepts will be introduced using this whimsical bird. (60 min)

ND Computer Science & Cybersecurity Standards: MS.DD.1

BRIDGE DESIGN CHALLENGE

Students act as structural engineers and learn about forces and load distributions as they follow the steps of the engineering design process to design and build small-scale bridges that can carry a load. (60 min)

ND Science Standards: MS-ET1-3; MS-ET1-4

LITTLEBITS AND ELECTRICITY

Learn how electrons flow and explore the basics of circuitry and electric engineering with littleBits electronic building blocks. (45 min)

ND Science Standards: MS-PS2-3

STURDY STRUCTURES

Students are challenged to build the tallest earthquake-proof skyscraper. Using the engineering design process, they will design and build skyscrapers for height, stability, and strength to withstand a simulated earthquake. (60 min)

ND Science Standards: MS-ET1-3; MS-ET1-4

BUCKET TOWERS

Students will collaborate in groups to design a tower that is sturdy and strong. Each tower will be put to the test - how many washers can we add before the tower collapses? Learn about 3D shapes, variables, and construction engineering. (60 min)

ND Science Standards: MS-ET1-3; MS-ET1-4

MARBLE ZIPLINES

Fight gravity in this STEM workshop designed to challenge your best engineers. Can you work as a group to build a safe yet fast zip line for our marble passenger? Use your math and engineering skills to safely deliver your marble to the landing zone. (60 min)

ND Science Standards: MS-ET1-3, 4; MS-PS2-1

DISSECTION (EARTHWORMS)

Study the body systems of an earthworm. Dissect the digestive, circulatory, reproductive, and nervous systems. (45 min)

**Non-refundable materials fee of \$50 and 4 weeks advanced booking required.*

ND Science Standards: MS-LS2-1; MS-LS2-3

DISSECTION (GRASSHOPPERS)

Insects are the most diverse class of animals on the planet with over 1 million named species. Examine the entire grasshopper, explore basic insect anatomy, identify the major subdivisions and parts of the body. (45 min)

**Non-refundable materials fee of \$50 and 4 weeks advanced booking required.*

ND Science Standards: MS-LS1-1; MS-LS1-3

FORENSICS

Work as forensic investigators and use techniques of forensic science to analyze evidence left behind at a crime scene. Use deductive reasoning to evaluate fingerprints, chromatography, fibers, smells, liquids, powders, and blood evidence to determine the criminal's identity. (60 min)

ND Science Standards: MS-LS1-1; MS-PS1-2

BRIDGE DESIGN CHALLENGE

Students act as structural engineers and learn about forces and load distributions as they follow the steps of the engineering design process to design and build small-scale bridges that can carry a load. (60 min)

ND Science Standards: HS-ET1-2; HS-ET1-3

EARTHQUAKE-PROOF SKYSCRAPERS

Students are challenged to build the tallest earthquake-proof skyscraper. Using the engineering design process, they will design and build skyscrapers for height, stability, and strength to withstand a simulated earthquake. (60 min)

ND Science Standards: HS-ET1-2; HS-ET1-3

MARBLE ZIPLINES

Fight gravity in this STEM workshop designed to challenge your best engineers. Can you work as a group to build a safe yet fast zip line for our marble passenger? Use your math and engineering skills to safely deliver your marble to the landing zone. (60 min)

ND Science Standards: HS-PS2-3

DISSECTION (SHEEP EYE)

Sheep eyes closely resemble the human eye. Students will observe, learn the anatomical structures and compare form and function of the sheep eye. (45 min)

**Non-refundable materials fee of \$50 and 4 weeks advanced booking required.*

ND Science Standards: HS-LS1-1; HS-LS1-2

DISSECTION (FROG)

The dissection of preserved frogs is an engaging introduction to vertebrate anatomy and mature body systems. Students will explore the anatomy of the frog and learn how anatomical structures are related to their functions. (45 min)

**Non-refundable materials fee of \$50 and 4 weeks advanced booking required.*

ND Science Standards: HS-LS1-1

FORENSICS

Work as forensic investigators and use techniques of forensic science to analyze evidence left behind at a crime scene. Use deductive reasoning to evaluate fingerprints, chromatography, fibers, smells, liquids, powders, and blood evidence to determine the criminal's identity. (60 min)

ND Science Standards: HS-LS1-1; HS-PS1-2

FINCHES AND CODING

Learn the basics of coding with our Finch robots. Robots will follow lines and perform other programmed tasks, based on how the student progresses. Depending on age range and skill level, several concepts will be introduced using this whimsical bird. (60 min)

ND Computer Science & Cybersecurity Standards: HS.DD.1