WSD Elementary Science and Comp Science Kit Check-Outs

Click the link to see descriptions and pictures of Kits.

Kinder

- Boo Bubbles K-6*
- Energy and Motion Ramps
- Hot Air Bag
- Tree Detective

1st

- Boo Bubbles K-6*
- Sound Palm Pipes*
- Tree Detective

2nd

- Animal X-rays
- Boo Bubbles K-6
- Handheld Microscope with Slides 2-6
- Hot Air Bac
- Polar Bear and Black Bear Skulls and Animal Pelts and Books
- Polleneighbors
- Seed Sleuths

3rd

- Animal X-rays*
- Boo Bubbles K-6*
- Energy and Motion Ramps
- Handheld Microscope with Slides 2-6*
- Polar Bear and Black Bear Skull and Animal Pelts and Books
- Tree Detective*
- Seed Sleuths*

4th

- Animal X-rays *
- Boo Bubbles K-6*
- Digging Dinosaurs
- Energy and Motion Ramps
- Handheld Microscope with Slides 2-6*
- Polar Bear and Black Bear Skull and Animal Pelts and Books
- Sound Palm Pipes
- Seed Sleuths*
- Wild Aware
- Write it Do It 4th-6th Grade

5th

- Boo Bubbles K-6*
- Handheld Microscope with Slides 2-6
- Write it Do It 4th-6th Grade

6th

- Boo Bubbles K-6
- Handheld Microscope with Slides 2-6
- Heat Transfer Kit
- Hot Air Bag
- Meteorite Rock and Slice
- Patterns and Partnerships
- Splitting Molecules
- Seasons and Phases of the Moon
- Write it Do It 4th-6th Grade

Computer Science Robots

- Sphero Indi (suggested for K)
- VEX 123 (suggested for 1st)
- VEX Go (suggested for 2nd)
- <u>Finch</u> (suggested for 3rd)
- Ozobots (suggested for 4th)
 Mini Sphero (suggested for 2nd-6th)

Science kits can be reserved for a one-week block.

Computer Science kits can be reserved for a two-week block.

The kits will be sent to your school via the Pony.

Science kits can be checked out for 1 week. Robots can be checked out for 2 weeks.



Questions: Maggie Huddleston mahuddleston@wsd.net

#1-Animal X-rays - 2nd, 3rd and 4th grades

Supports: 2.2.2, 3.2.4 and 3.2.5, 4.1.1

- Includes 13 x-rays
- Size 8 in. x 10 in.
- Includes reptiles, fish, amphibians and birds

Reserve Here



#2-Boo Bubbles K-6

Supports: Science and Engineering Practices

There's something magical about a bubble. It's just a little puff of air trapped inside a thin film of soap and water, but its precise spherical shape and beautiful swirling colors make it a true wonder of science. Bubbles are amazing, but bubbles filled with fog are even cooler. Now imagine if you could bounce and play with these bubbles, holding them without popping. It's a demonstration of science and performance art that will have everyone, even you, oohing and ahhing. The teacher will need to supply the Dry Ice.

Reserve Here



#3-Digging Dinosaurs-4th Grade

Supports: 4.1.3

Natural History Museum: Kit that comes with multiple fossils including *Diabloceratops* skull, frill piece, & horn. Comes with suggested lesson tied to SEEd standards.



#4-Energy and Motion Ramps

Supports: K.3.1, 3.3.1, 4.2.1

Create and build fun STEM engineering experiments! Simply place supports in the bases, add ramps and complete challenges to discover force and motion, cause and effect and more science and STEM concepts. To be used as a Demo by teacher and not for unsupervised play.

Reserve Here



#5- Heat Transfer Kit - 6th Grade

Supports: Standards 6.2.3 and 6.2.4

Clark Planetarium- This hands-on activity will encourage investigation of the surrounding environment by using observation, data collection, analysis, and comparison to allow the students to understand the differences in how materials gain and lose heat. Students will work together in small scientific groups to research and collect data and convene with the greater scientific community (classroom) to share data and draw conclusions. 45-60 minute

investigation.





Reserve Here

#6- Handheld Microscope with Slides

2nd-6th- Because it is SO cool!!

Classroom Set of 5. See many different kinds of cells and organisms.



#7-Hot Air Bag - K or 2nd or 6th Grade

Supports: K.1.4, 2.3.4, 6.2.2 and 6.2.3

This balloon bag harnesses solar energy to expand. After rolling out the bag and tying one of the ends, you have to run around and fill the bag with air. Once it is full, tie the other end so that air can't escape and watch the power of the sun at work! The solar energy will heat up the air inside the bag causing the molecules to move around and bump into all sides of the solar bag and make it rise! (Only available Aug-Sep and April-May)



Reserve Here

#8-Meteorite Rock and Slice - 6th Grade

Supports: Strand 6.1

<u>Donated by USU's NASA program</u>. The meteorite is composed of fused iron and lead, and weighs 12 pounds. The Slice was cut with a diamond saw and show interlaced elements of iron and lead. The slide was coated in plastic to prevent rusting. All meteorites come from inside our solar system. Most of them are fragments of asteroids that broke apart long ago in the asteroid belt, located between Mars and Jupiter. Such fragments orbit the Sun for some time—often millions of years—before colliding with Earth.



Reserve Here

#9-Patterns and Partnerships - 6th Grade

Supports 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.4.5

Red Butte Gardens: The Patterns & Partnerships Bin is filled with phenomenon-based, 3D investigations and lesson plans that explore Utah's mountain ecosystems. Covering all 5 of the 6th grade life science SEEd standards, this bin includes customizable curriculum, over 100 specimens, drone footage, scientific tools, and more!



#10-Bears and Furs (Polar Bear and Black Bear Skull and Animal Pelts and Books - 2,3,4 Grade)

Supports: 2.2.1 and 2.2.2, 3.2.3, 3.2.4, 3.2.5, 4.1.1

Hogle Zoo- Polar bear and black bear skull replicas. Includes numerous animal pelt samples. This kit can be used to show adaptations or survival in certain environments.



Reserve Here

#11-Polleneighbors - 2nd Grade

Supports 2.2.1, 2.2.2, 2.2.3

Red Butte Gardens: The Polleneighbors Bin is filled with 3D printed pollen, digital microscopes, and preserved flowers and pollinators from Red Butte Garden. You and your 2nd graders will dive into plant structures, functions, and patterns alongside discussions and research on pollinators and habitats. With three lessons covering SEEd Standards 2.2.1-2.2.3, this bin equips you with innovative resources to nurture your young scientists.



#12-Seasons and Phases of the Moon - 6th Grade

Supports 6.1.1

Clark Planetarium: This hands-on activity will challenge students' common misconceptions by using observation, data collection, analysis and comparison to allow the students to discover the real reason behind the seasons. Students will work together in small scientific groups to research and collect data and convene with the greater scientific community (classroom) to share data and draw conclusions. Students will:

- Measure the amount of sunlight at specific locations on the globes
- Estimate the height of the noon Sun
- · Estimate the number of hours of daylight various parts of the Earth receive at different times of the year





Reserve Here

#13-Splitting Molecules - 6th Grade

Supports: 6.2.1

Students observe a phenomena of bubbles come off a pencil. (Water electrophoresis). Can be used to introduce atoms or as a review. Encourages collaboration. Kit contains a classroom set apparati and teacher instructions. 45-60 minutes investigation.

Reserve Here



of 6

#14-Sound Palm Pipes 1st and 4th grade

Supports: 1.3.1, 1.3.4, 4.2.3

- 5 sets of 8 palm pipes
- Learn how to create vibrations that you hear as music
- Discover that the different lengths of pipe create different lengths of sound waves
- Each one of these colorful music pipes sounds a specific note. There's a different color for each note, and every one of the musical pipes is of a different length. So, not only does the set of Palm Pipes teach children about the production of sound, but it also encourages them to learn cooperation with one another in a group activity.



#15-Wild Aware Utah Kit - 4th Grade

Supports: 4.1.1

Hogle Zoo - Learn about Utah's native wildlife with skull replicas, pelt samples, books, activities, etc. This is the perfect way for students to have a hands-on experience learning about the adaptations that animals need to live in Utah.

- 3 story books
- 8 furs from Utah animals
- animal track rubbing plates
- a bucket of replica animal scat
- 4 animal skull replications
- pictures of native Utah animals
- deer antlers
- a black bear claw
- a rattlesnake rattle
- a USB with the lessons and information, and other miscellaneous material for activities

Reserve Here



#16-Write it Do It 4th-6th Grade

Supports: Obtaining, evaluating, and communicating information and ELA procedural or sequence writing standards.

One participant will write a description of an object and how to build it. The other participant will attempt to construct the object from this description. 45 minute activity

Instructions Link

Reserve Here



#17-Tree Detectives

Supports: K.2.1, 1.2.2, 3.2.3

Students become detectives as they work to save a grove of trees. Their detective journal and optional videos help the students break the code hidden in tree rings, using their own magnifying tool and a tree cookie (slice of tree trunk.)



#18-Seed Sleuths

Supports: 2.2.3, 3.2.4, 4.1.1



Students work to unravel the mystery of the stolen seeds by investigating and experimenting with a variety of seed samples and their fruits. With the help of their detective journal, optional videos, and magnifying glass, students explore the scientific process and learn about seed dispersal and survival needs.

Reserve Here

COMPUTER SCIENCE KITS

#1-Sphero indi (Suggested for Kindergarten)



Say hello to the Sphero indi Class Pack (8 robots), designed to introduce early learners Pre-K and up) to computational thinking, STEAM, and computer science principles in a fun and exciting way.

The car-shaped indi learning robot offers an unplugged programming experience with an onboard color sensor and interactive <u>color-coded</u> <u>tiles</u>, or students can kick their skills into high gear with <u>simplified block</u> <u>coding options</u> in the free <u>Sphero Edu</u> <u>Jr app</u>, designed just for indi.

MORE INFO LINK

#2-VEX 123 (Suggested for 1st grade)



6 Robots

The VEX 123 Robot is an interactive, programmable robot that brings STEM, Computer Science, and Computational Thinking to life for young students.

<u>Teacher Resources</u> <u>Link for info</u>

Reserve Here

#3-VEX Go (Suggested for 2nd grade)

Supports:



5 sets

A construction system that teaches the fundamentals of STEM through hands-on activities. This system helps young students perceive coding and engineering in a fun and positive way! Kids can build, power and code in Scratch their first robots.

Educator Guide

#4-Finch (Suggested for 3rd grade)



5 robots

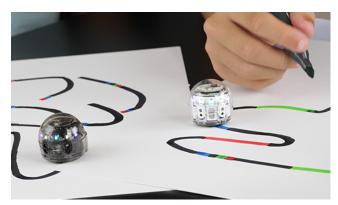
The Finch is a small robot designed to engage students in computational thinking and computer science from kindergarten to college. The Finch supports various programming environments, including icon-, block-, and text-based options.

More info link
Teacher Course

Reserve Here

#5-Ozobots (Suggested for 4th grade)

Supports:



Ozobots are little robots that are designed as an introduction to coding. Students use color combinations to move the Ozobot on a path from one location to another.

Teacher Guide
Reserve Here

#6-Mini Spheros (Suggested for 2-6 grade)



Supports:

Introduce a playful, imaginative, and easy-to-use STEAM learning tool to your elementary classroom! Sphero Mini is compact, measuring about the size of a ping pong ball, and offers intuitive programming and a host of features that make it an exciting addition to your learning environment. Each Mini Activity Kit in the Education 16-Pack contains a clear Sphero Mini, bumper covers, traffic cones, bowling pins, construction sets, and activity cards, supporting both individual and group learning for up to 2 students per Mini.

Information