VIRGINIA TECH



November 16, 2019

10:00 - 4:00 Festival expo

4:30 - 6:00 Nutshell Games at the Moss Arts Center

www.vt.edu/sciencefestival



THANK YOU TO OUR PARTNERS!

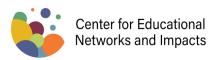
PLATINUM



OFFICE OF THE EXECUTIVE VICE PRESIDENT AND PROVOST

GOLD













BRONZE

Virginia Tech Center for Autism Research



SILVER

Science Museum of Western Virginia
Virginia Tech College of Science
Virginia Tech Department of Mechanical Engineering
Technology-enhanced Learning and Online Strategies (TLOS)

SCIENCE IS ASKING QUESTIONS

Science in Real-time

Center for Educational Networks and Impacts Ages 3 and up



Motivating Kids with ASD Through Meaningful Interaction

Bros United Ages 5 and up

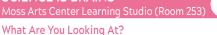
Passport to Discovery

Virginia Tech College of Science Ages 3 and up

Electric Racing Motorcycles

BOLT at Virginia Tech Ages 8 and up

SCIENCE IS BRAINS



Eye-tracking Technology Station

Cognitive Developmental Science Lab at Virginia Tech Ages 3 and up



Brain Drain - the Role of Fluid Movement in Brain Tumors

School of Biomedical Engineering and Sciences Ages 5 and up

Neuron Pipe Cleaner Craft

Neuroscience Club Ages 5 and up

Design, Build, & Fly Paper Airplanes

Design Build Fly at Virginia Tech Ages 3 and up

The Amazing Brain: a Hands-on, Minds-on **Neuroscience Experience**

Virginia Tech School of Neuroscience Ages 3 and up

Do You See What I See?

Virginia Tech Ages 5 and up



The Power of Polymers

Schulz Research Group All ages

SCIENCE IS SENSORY FRIENDLY



Sensory-friendly Space

Center for Autism Research, Center for Educational Networks and Impacts Ages 3 and up

SCIENCE IS IMMERSIVE

Moss Arts Center, Cube

Air, Land, and SEE - a Transdisciplinary Exploration of Science, Technology, and Art NanoEarth, Mid-Atlantic Aviation Partnership, Virginia Tech Drone Park, Institute for Creativity Arts and Technology, School Of Performing Arts, Freshwater Mollusk Conservation Center, Institute for Creative Technology and Applied Science

SCIENCE IS BIGGER THAN YOU THINK Moss Arts Center, Grand Lobby

Miss Virginia 2019, Camille Schrier Miss Virginia, College of Science Ages 8 and up

The Science, Mathematics, and Art of Hip Hop Music #VTDITC: Hip Hop Studies at Virginia Tech Ages 11 and up

Dancing Plants Institute of Creativity, Arts and Technology Ages 3 and up

Rethinking Design Materials Materials and Design Laboratory (MaD Lab) Research Ages 8 and up

You Want It? 3D Printing Can Make It DREAMS Lab Ages 3 and up

Undersea Virtual Reality 3D Optical Information Group Ages 3 and up

The Solar System, Galaxy, and Beyond Science Museum of Western Virginia Ages 5 and up

Blockchain Kinetic Sculpture ICTAS, ICAT, Computer Science, School of Visual Arts Ages 5 and up

Using Legos to Convert Orthographic Projections to Isometric Builds VT PEERS (Virginia Tech Partnering with Educators and Engineers in Rural Schools) Ages 5 and up

Hands-on Math **Shoestring Science** Ages 5 and up

Augmented Reality Interface for **Future Spacesuits** Hokienauts Ages 5 and up

Computers are Game Changers Virginia 4-H Ages 5 and up

Coding is a Game Changer with 4-H Virginia 4-H Ages 3 and up

Creative Technologies: What's That? Creative Technologies Graduate Studio Ages 3 and up

Media Building Project Showcase GFURR - Big Sticky Living Labs CAUS Ages 5 and up

Women Scientists from the New River Valley 500 Women Scientists Blacksburg Pod Ages 3 and up

Connecting with Scientists through Skype A Scientist Skype A Scientist Ages 11 and up

SCIENCE IS ROBOTICS

Moss Arts Center, Grand Staircase



Electricity is Everywhere Virginia Tech LDRS 1015 TEAM 3 All ages

Robot Locomotion

Hybrid Dynamic Systems and Robot Locomotion Láb, Mechanical Engineering, Virginia Tech Ages 3 and up

EXO-Skeleton Demo Carilion Clinic Ages 3 and up

Jam Out with Robots and Computers The Mind Music Machine Lab Ages 5 and up

3D Printed Prosthetics e-NABLE VT Ages 8 and up

Need a Hand? Biomedical Engineering Society Ages 3 and up

SCIENCE IS WELL-BEING

Moss Arts Center, Orchestra Lobby



Forensic Nurse Examiner - Investigation **Techniques** Carilion Clinic Ages 3 and up

Teddy Bear Clinic Carilion Clinic Ages 3 and up

Humpty Dumpty Seat Belt Safety - Buckle Up Carilion Clinic Ages 3 and up

DermaScan Carilion Clinic Ages 3 and up

Germ "GLO" Demo Carilion Clinic Ages 3 and up

Better Breathers - Respiratory Therapies and the Effects of Smoking Radford University Carilion Ages 3 and up

SCIENCE IS LIFE

Moss Arts Center, Mezzanine Lobby



Mosquito Genetics

Department of Entomology, Virginia Tech Ages 5 and up

Getting to Know Bugs and Bones Natural History Collections Club Ages 5 and up

Do Birds of a Feather Spread Disease Together? Hawley Lab, Virginia Tech Department of Biological Sciences Ages 8 and up

More...



Ages 8 and up

🛼 SAFE - Supporting Autism-Friendly Environments. Exhibitors who attended a SAFE Mentor training.





Cube

Grand Lobby

Newman Library: 1st Floor

4th Floor

Moss Arts Center:







Sandbox

Grand Staircase, Orchestra Lobby

Going Bananas for DNA

Alpha Epsilon Ages 3 and up

Plants, Prizes, Selfies, and Specimens

Virginia Tech Massey Herbarium Ages 8 and up

Shared Outdoor Experiences

Department of Computer Science Ages 3 and up

Paleontological Research Opportunities for Undergraduates (PRO-U) and Fossils

Virginia Tech Paleobiology & Geobiology Ages 5 and up

Microbes, Friends or Foes?

Microbiology Club at Virginia Tech Ages 3 and up

Rock Around the Clock

Department of Biological Sciences Ages 5 and up

Take a Walk on the Wild Side

The Student Chapter of the Wildlife Society at Virginia Tech Ages 5 and up

How Well Do You Know Your Leaves?

Virginia Tech Ages 5 and up

Understanding the Building Blocks of Life: DNA

Fralin Life Sciences Institute Ages 11 and up

SCIENCE IS EARTH

Moss Arts Center, Balcony Lobby

Microplastic Pollution: How Are You Contributing? American Water Resources Association Student Chapter at Virginia Tech Ages 3 and up

Monitoring Volcanoes Using High-precision GPS Geodesy and Tectonophysics Laboratory Ages 5 and up

Shake It: Engineering Earthquake-resistant **Buildings**

Earthquake Engineering Research Institute Ages 3 and up

Build-a-stream

Virginia Tech Stream Team Ages 5 and up

The Dark Side of the Universe: How to See Invisible "Dark Matter"

Virginia Tech, Department of Physics Ages 11 and up

Hands-on Watershed Engineering and Education Learning Enhanced Watershed Assessment

System (LEWAS) Ages 3 and up

Working Together to Understand a Changing World

Interfaces of Global Change Ages 5 and up

Treasures of the Earth

Geology Club Ages 3 and up

Ages 5 and up

Create a Miniature Edible Garden NRV Macaroni Kid

SCIENCE IS MESSY Moss Arts Center, Portico

It's Not Rocket Science, It's Fun Alpha Chi Sigma Professional Chemistry Fraternity Ages 5 and up

Formula Race Car Formula SAE

Ages 3 and up

Would You Rather Lick a Smart Phone or a Bathroom Door?

Biological Systems Engineering Department: Graduate Student Organization Ages 5 and up



Are You Gellin'?

Moore Research Group Ages 3 and up



What Does Our Community Think About Climate Change?

Alpha Phi Omega National Co-ed Service Fraternity Ages 5 and up

Competitive Robots

FIRST Robotics Competition Team 401 Ages 8 and up

SCIENCE IS MESSY

Moss Arts Center, Lawn

Concrete for Kids

Concrete for Kids Ages 5 and up



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How to Play and Build with Soil

Geotechnical Student Organization, Virginia Tech All ages

Using Catalysts to Make Toothpaste for Elephants Alpha Chi Sigma All ages

OOPS, Oil Spill

Galipatia Living Learning Community, Center for Enhancement of Engineering Diversity (CEED), Virginia Tech Ages 5 and up

SCIENCE IS IMMERSIVE

Moss Arts Center, Sandbox



The Recursions of Escher Institute for Creativity, Arts, and Technology Ages 5 and up

L2OrkMote Wireless Controller

Institute for Creativity, Arts, & Technology Ages 8 and up

Virtual Reality Sokoban

School of Visual Arts Ages 8 and up

Glanceable Augmented Reality Interfaces Center for Human-Computer Interaction Ages 3 and up

SCIENCE IS ON THE ROAD

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What it Takes to Design, Build, Test and Race a Human Powered Submarine Human Powered Submarine Ages 3 and up

Carilion Children's Ambulance

Carilion Clinic Neonatal Pediatric Transport Team Ages 3 and up

Ground Transportation Ambulance

Carilion Clinic Ages 3 and up



Explore the VT Mobile Autism Clinic RV Virginia Tech Autism Clinic and

Center for Autism Research Ages 3 and up

Touch an EMS Sprinter

Carilion Clinic Patient Transportation Ages 3 and up

Coding with Finch Robots using Snap!

Institute for Advanced Learning and Research All ages

Research in Motion: Research Vehicles and **Data Collection**

Virginia Tech Transportation Institute All ages

How Students are Turning a Car into a Hybrid Hybrid Electric Vehicle Team at Virginia Tech Ages 11 and up

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SCIENCE IS EXPERIENTIAL

Torgersen Hall, Room 1100

Cybersecurity - Hacking and Defense Virginia Cyber Range Ages 11 and up

Let's Make a Robot Parade

Red Beard Pandas Ages 5 and up

SCIENCE IS MOTION



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Fun with Physics

Virginia Tech Department of Physics Ages 3 and up

Autonomous RC Car

Virginia Tech Transportation Institute Ages 8 and up

Experimenting with Wind Energy

Wind Turbine Team at Virginia Tech Ages 8 and up

Electromechanical Levitator and Drawing Machine

Sweet Briar College Ages 8 and up

Lotus Leaves, Spider Webs, and Water Beads Fluid Physics Lab, Department of Mechanical

Engineering, Virginia Tech Ages 11 and up



Moss Arts Center: Cube

2nd Floor, Turner St. Grand Staircase, Orchestra Lobby Grand Lobby Mezzanine Lobby Balcony Lobby Portico, Lawn Sandbox

Rocketry at Virginia Tech Ages 5 and up Strawberry DNA Extraction Virginia Tech Biochemistry All ages

Graduate Student Association

Explore Agriculture in Virginia Virginia Foundation for

Agriculture in the Classroom Ages 5 and up

SCIENCE IS EXPERIENTIAL

Radioactive Golf Balls (simulation)
Galipatia Living Learning Community Ages 11 and up

SCIENCE IS PROCESS

The Curiosity Shop

David M Allen Ages 11 and up

Flow of Molecules
Department of Mechanical Engineering, Virginia Tech All ages

Exploring the DNA of Fruits Biochemistry Club

Ages 5 and up



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Library Technology Showcase University Libraries Ages 5 and up

SCIENCE IS PROCESS

From Idea to Object University Libraries 3D Design Studio Ages 8 and up

Divide and Conquer: People Helping People Industrial and Systems Engineering Ambassadors, College of Engineering Ages 8 and up



Finding Bigfoot: a Data Documentary Data Viz Studio Ages 5 and up

Bugs in 3D

Virginia Tech University Libraries Ages 3 and up



(11)

Teaching Engineering and Kinematics
TEK Robotics Ages 5 and up

SCIENCE IS PROCESS

Newman Library, Room 4020 (4th floor)



Explore Immersive Environments

University Libraries Virtual Environments Studio Ages 5 and up

