

VIRGINIA TECH

November 16, 2019



SCIENCE FESTIVAL

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



Center for Educational
Networks and Impacts

COLLEGE ACCESS COLLABORATIVE
VIRGINIA TECH.



Virginia Tech Center for
Communicating Science



MOSS
ARTS
CENTER



UNIVERSITY LIBRARIES
VIRGINIA TECH.

SILVER

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

BRONZE

Virginia Tech Center for Autism Research



SCIENCE IS ASKING QUESTIONS

Moss Francis T. Eck Exhibition Corridor

1

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

Moss Arts Center Learning Studio (Room 253)

1

What Are You Looking At?

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

Moss Observation Room (Room 251)

1

 **Sensory-friendly Space**
Center for Autism Research, Center for Educational Networks and Impacts
Ages 3 and up

SCIENCE IS IMMERSIVE

Moss Arts Center, Cube

2

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
Ages 8 and up

SCIENCE IS BIGGER THAN YOU THINK

Moss Arts Center, Grand Lobby

3

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

4

Electricity is Everywhere
Virginia Tech LDRS 1015 TEAM 3
All ages

Robot Locomotion
Hybrid Dynamic Systems and Robot Locomotion Lab, 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

4

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

5

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...

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

Alumni Mall: 

Torgersen Hall:  1st Floor

Newman Library:  1st Floor  4th Floor

Moss Arts Center:  2nd Floor, Turner St.  Cube  Grand Lobby  Grand Staircase, Orchestra Lobby

 Mezzanine Lobby  Balcony Lobby  Portico, Lawn  Sandbox

SCIENCE IS LIFE

Moss Arts Center, Mezzanine Lobby

5

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

6

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

Create a Miniature Edible Garden

NRV Macaroni Kid
Ages 5 and up

SCIENCE IS MESSY

Moss Arts Center, Portico

7

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

7

Concrete for Kids

Concrete for Kids
Ages 5 and up

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

8

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

Gleanceable Augmented Reality Interfaces

Center for Human-Computer Interaction
Ages 3 and up

SCIENCE IS ON THE ROAD

Alumni Mall

9

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

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

SCIENCE IS EXPERIENTIAL

Torgersen Hall, Room 1100

10

Cybersecurity - Hacking and Defense

Virginia Tech Cyber Range
Ages 11 and up

Let's Make a Robot Parade

Red Beard Pandas
Ages 5 and up

SCIENCE IS MOTION

Torgersen Hall, Atrium

10

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

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Rocketry

Rocketry at Virginia Tech
Ages 5 and up

Strawberry DNA Extraction

Virginia Tech Biochemistry
Graduate Student Association
All ages

Explore Agriculture in Virginia

Virginia Foundation for
Agriculture in the Classroom
Ages 5 and up

SCIENCE IS EXPERIENTIAL

Torgersen Hall, Room 1120

10

Radioactive Golf Balls (simulation)

Galipatia Living Learning Community
Ages 11 and up

SCIENCE IS PROCESS

Newman Library, New River

11

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

Library Technology Showcase

University Libraries
Ages 5 and up

SCIENCE IS PROCESS

Newman Library, Multipurpose Room

11

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



Teaching Engineering and Kinematics

TEK Robotics
Ages 5 and up

SCIENCE IS PROCESS

Newman Library, Room 4020 (4th floor)

12

Explore Immersive Environments

University Libraries Virtual Environments Studio
Ages 5 and up

