

TechFest 2008 Exhibit Activities

Go to www.ascd Dayton.org for web addresses of TechFest Exhibitors!



Great Hall, Building 12, Ponitz Center

Booth

- 1 **AFIT-Tau Beta Pi:** Hands-on exhibits and handouts.
- 2 **National Museum of the United States Air Force (NMUSAF):** Hands-on activities, Newton's Three Laws of Motion.
- 3 **American Chemical Society (ACS) – Dayton Chapter:** A hands-on chemistry experiment.
- 4 **Lockheed Martin Corporation:** Display panel and video with highlights of Lockheed Martin's aircraft programs.
- 5 **The Mars Society - Ohio Chapter:** An active, destination-driven space program. Information on Mars, gravity bricks and other hands-on display material.
- 6 **UD-Department of Geology:** Displays and hands-on activities for geology.
- 7 **Infoscitex Corporation:** Build paper helicopters and airplanes to see the unusual shapes that can still fly.
- 8 **American Society of Civil Engineers (ASCE):** Hands-on demonstration of civil engineering concepts for a wide range of ages.
- 9 **American Meteorological Society (AMS) – Wright Memorial Chapter:** Weather information, simple demonstrations, and career information with booth staffed by local professional meteorologists.
- 10 **SunWatch Indian Village/Archaeological Park:** Techniques for dating artifacts (carbon dating, dendrochronology). Hands-on mapping project. Ancient technology display that uses math to explain energy transference.
- 11 **Project READ - The literacy coalition for Montgomery, Greene & Preble Counties:** Discover fun activities you can do with everyday things! Project READ supports literacy in all its forms!
- 12 **WPAFB-Education Outreach and American Institute of Aeronautics & Astronautics:** Variety of demos and setups on robotics and other science topics. Information for free supplemental science lessons for area teachers.
- 13 **Dayton Amateur Radio Association (DARA):** Learn electronics by building an FM radio kit. Introduction to satellites, amateur television and more.
- 14 **Miami Valley Astronomical Society (MVAS):** Interactive exhibits combined with literature promoting astronomy and astronomical careers.
- 15 **WSU-Department of Psychology:** Hands-on demonstrations of various psychological principles in perception, cognition, more.
- 16 **WSU-Department of Physics:** Hands-on demos and activities illustrating the laws of physics.
- 17 **WSU-Department Earth/Environmental Sciences:** Computer show of three most common geological hazards that impact our daily life and a hands-on seismic activity.
- 18 **WSU-Department of Mathematics and Statistics:** Catchy computer demos and literature about the math disciplines.
- 19 **AVETeC:** Hands-on activities related to Newton's 3 Basic Laws.
- 20 **Boonshoft School of Medicine:** Student-to-student program helps K-12 students become familiar with subjects like "How to be an MD."
- 21 **Special Collections and Archives Wright State University:** Historic photos and documents teach about flight and aerospace technology over time. Highlights of Wright Brothers Collection and history of aviation collections.
- 22 **Central State University - SME Student Chapter:** Hands-on activity related to manufacturing. Educational and professional information about CSU's engineering and technology programs.
- 23 **WSU-Department of Biological Sciences:** Demonstrations and hands-on science experiments using the latest technology, live organisms and exhibits from the field of biology.
- 24 **UD-Department of Biology:** Hands-on experience of laboratory work in Biology, Medicine, and Veterinary School.
- 25 **UD-Engineering Technology:** Design and construction of a simple project. Explore mechanical design, and manufacturing testing processes.
- 26 **Applied Research Associates:** Hands-on psychology-based activities for K-12 children.
- 27 **UD-Department of Physics:** Science of light & color: interactive demo on how we see color.
- 28 **UD-Engineers in Technical Humanitarian Opportunities of Service-learning:** Two appropriate technology-related demonstrations and solar oven, plus a water-filtration demonstration. Learning display boards.
- 29 **UD-Department of Chemical Engineering:** Hands-on demonstration on chemistry/CME.
- 30 **National Society of Black Engineers (NSBE):** Engineering experimental display. Brochures, a poster and other gadgets.
- 31 **Really Rad Tech Team (4H Club):** Tornado simulator, GIS, and 96 hour backpack for disaster preparedness.
- 32 **National Park Service-Dayton Aviation:** Learn how the Wright brothers used a catapult to get their plane into the air. Participants will make their own simple catapult.
- 33 **Dayton History Carillon Park:** History of engineering and technology, particularly in the Dayton area.
- 34 **Inventors Council of Dayton:** 1/32 scale Wright Flyer Wind Tunnel, Time Tunnel, 3D Viewer, Fuel Cell Car, Autonomous Robot, more.
- 35 **Riverworks Discovery:** Exhibit on the working Ohio River. Explore barges, electricity and water with hands-on experiments. Colorful "Kids for Clean Rivers Pledge" sheet and Word Search handouts.
- 36 **Institute of Environmental Sciences & Technology - Instrumentation, Systems & Automation Society (IEST&ISA):** Infrared camera images of participants, frequency response of a balsa plane on a vibration table, and measurements of metals and composite materials.
- 37 **WPAFB-Education Outreach and American Institute of Aeronautics & Astronautics (AIAA):** Variety of demos and setups on robotics and other science topics. Information for free Supplemental science lessons for area teachers.
- 38 **Dayton's PBS station (Think TV):** Multimedia interactive educational resources for PreK-12 educators and students
- 39 **Tech Prep Consortium:** Information
- 40 **Affiliate Societies Council (ASC) of Dayton:** Information
- 41 **Sinclair Community College - Department of Automation and Control Technology:** Hands-on robotics and automation demonstrations.
- 42 **Hesler Machine Tool:** Display and possibly run 1903 Wright Flyer Engine Replica.
- 43 **Sinclair Community College-Dept of Mathematics:** A display of robot technology used in teaching tech math. Includes calculator & computer controlled robots, power pulleys, servo motors, color mixers, more.
- 44 **Sinclair Science, Mathematics & Engineering Division:** Highlight various programs in the Science, Mathematics, & Engineering Division at Sinclair Community College.
- 45 **Kirkmont Center, Zanesfield, OH:** Hands-on display and activities on water quality.
- 46 **Sinclair CC- Dept. of Aviation Technology:** Displays for aviation occupations including pilot, aircraft mechanic, flight attendant, and flight dispatcher.

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Earley Auditorium, Building 12, Ponitz Center

Booth

- E1 **Boonshoft Museum of Discovery:** Robot teams for FIRST Lego League (FLL) as well as FTC.
- E2 **Engineers Club of Dayton (ECOD):** Hands-on "problems" to solve by kids K-8. "Problems" are concerned with simple engineering and physics principles.
- E3 **Russia Local School & Wright Brothers Aeroplane Company:** On display will be the 1902 Wright Glider built and flew by students of Russia Local School.
- E4 **Russia Local School & Wright Brothers Aeroplane Company:** Wright Brothers flight simulator and other interesting exhibits on physics of flight.
- E5 **American Institute of Aeronautics and Astronautics (AIAA):** Build straw rockets (straw, tape, clay, notecards, scissors) and launch them on our "rocket launcher" toward a target (bucket) about 10 yards away.
- E6 **UD-Department of Mechanical and Aerospace Engineering:** Radio Control (R/C) Plane flight simulators. Educational displays regarding aerospace engineering and mechanical engineering.
- E7 **WSU Institute of Electrical and Electronic Engineers:** IEEE is showing how technology affects everyday life. We will showcase how math and science are linked to modern technology.
- E8 **WSU-College of Engineering and Computer Science:** Basic engineering concepts with K'NEX, large K'NEX ball drop, mini baja vehicle, general College promotional materials.

South Hallway, Building 12, Ponitz Center

Booth

- H1 **American Society for Quality (ASQ) - Dayton Section:** Hands-on quality related activities, charts, graphs.
- H2 **Institute of Industrial Engineers (IIE):** Define a process of getting ready for school within 30 minutes.
- H3 **Project Management Institute (PMI) - Dayton/Miami Valley:** Organize tasks logically to meet project requirements. Have fun with simple projects. Become good with school projects. Learn about project management.
- H4 **SAFE Association-Wright Brothers Chapter:** Sit in an ejection seat, explore manikins, and other items related to research and development in the fields of safety and survival.
- H5 **Chase Bank:** Activities on value of money (i.e., how much different things cost) and other financial demos.
- H6 **Dayton Metro Library:** The value of libraries to acquiring useful knowledge and writing papers. Our Book Mobile bus will be outside the Great Hall on Sunday.
- H7 **Dayton Microcomputer Association (DMA & DACW):** Explore the inside of a PC and learn how it works. See what is inside a keyboard, mouse, hard drive, etc.
- H8 **Greater Dayton Chapter of Camp Fire USA:** Hands-on demonstrations of robotic toys and smoke rings.

Building 14

Sinclair Community College - Miami Valley Tech Prep Consortium: Caterpillar heavy equipment simulator; Computer Challenges. Build bridges, a mile-long tunnel, repair 3 skyscrapers, build 3 city domes. Begin STEM Careers in high school.

Building 13, Advanced Integrated Manufacturing (AIM) Center

Booth

- A1 **Sinclair Community College - Advanced Integrated Manufacturing (AIM) Center:** Demonstrations of computer-controlled machining tools.
- A2 **American Welding Society (AWS):** Motoman welding robot will perform live arc welding on sample weld joints. Plasma VIDEO monitor explains contribution of welding technology to society and career opportunities.
- A3 **Miami Valley Society of Plastics Engineers (MVSPE):** Engineering and science of plastics as an industry.
- A4 **Jeff Fryman, Milford, OH, Segway - Personal Transporter (Segway):** Rides on a Segway transporter will be provided.
- A5 **Dayton Tooling & Manufacturing Association and Society of Manufacturing Engineers:** Student built robots that are used in competition.
- A6 **Sinclair Community College - Department of Aviation Technology:** Computer flight simulator labs.
- A7 **Dayton Power & Light Company (DP&L):** Electrical safety demonstration using 7200 volt overhead distribution setup. Dangers of high voltage energized conductors are made visual.