

STEAMfest

- timeless tech - LEAF

Sponsored by LEAF

SAT. NOV. 18th 2017
10am – 3pm
Lancaster High School
www.steamfest.org

IMPORTANT: NO registration is required to attend STEAMfest on Sat. 11/18/2017 from 10am-3pm at the Lancaster High School! Please Register ONLY if you are committing to bringing in a MAKE-AHEAD CHALLENGE!

What is a Make-Ahead Challenge?

Choose a project (see back), receive the starter kit at school 10/19 or 10/20, get it done, share it at STEAMfest!

Why the fee? It offsets kit costs & makes you feel invested, gets parents involved, encourages you to focus your efforts/ best work on 1-2 choices. Just choose "waiver" if needed!

Will I be judged? No, there is positive adult mentoring only.

What if I need help? Try the Drop-in STEAMfest Workshops!

Drop-in STEAMfest Workshops @ the Lancaster Public Library

Stop in with your STEAMfest Make-Ahead project/questions anytime during these casual meet-ups. We'll have cool extra supplies, help find resources, troubleshoot problems – Have fun and share ideas with your peers! Visit once or often! Light refreshments provided.

O Sun. 10/22, 1-3pm

O Sun. 10/29/, 1-3pm

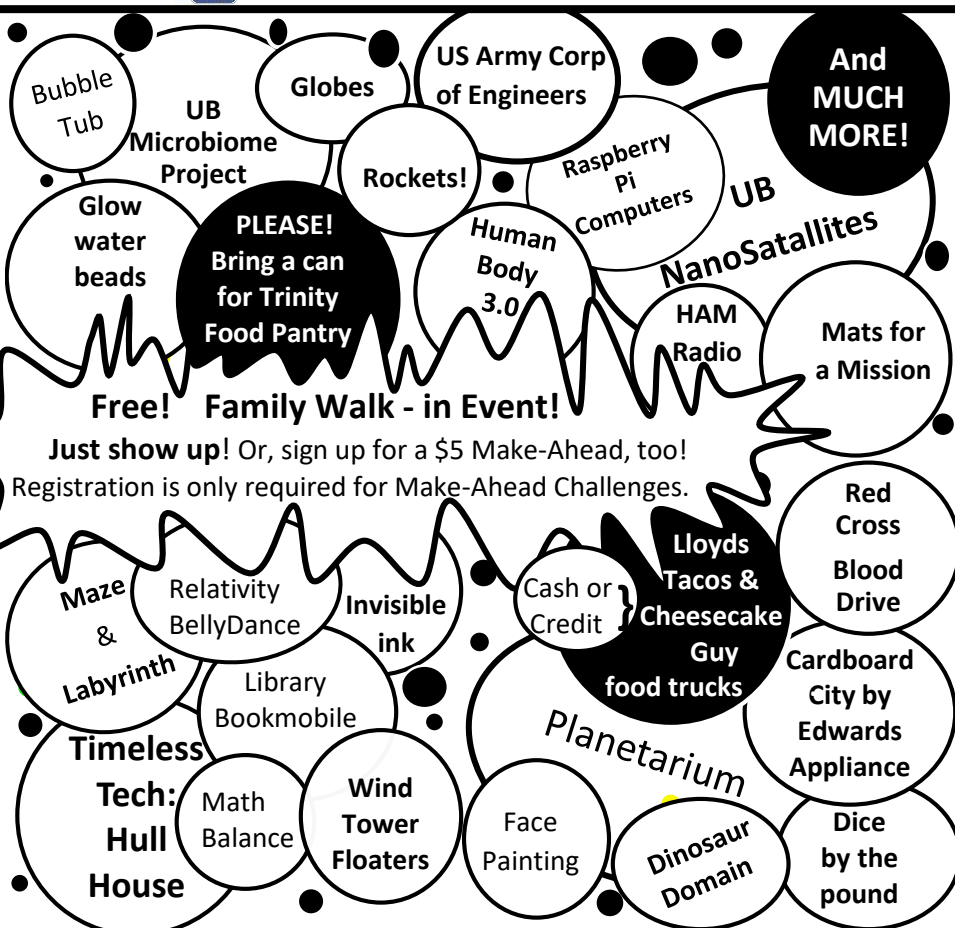
O Tue. 11/7, 4:30-6:30pm

O Tue. 11/14, 4:30-6:30pm

Science Technology Engineering Arts/Architecture Math + fest = FUN!

www.STEAMfest.org lancastersteamfest@gmail.com (716)-238-1559

www.facebook.com/lancastersteamfest



Free! Family Walk - in Event!

Just show up! Or, sign up for a \$5 Make-Ahead, too!
Registration is only required for Make-Ahead Challenges.

COMPLETE DETAILS at WWW.STEAMFEST.ORG

MAKE-AHEAD CHALLENGE: RETURN TO SCHOOL / REGISTER ONLINE: WWW.STEAMFEST.ORG BY MON. 10/16

- Student Name - - Grade - - School - - Teacher/Homeroom - - Hardship fee waiver? -

Y or N

- Parent/Guardian Name - - Home Phone - Cell Phone - Parent Email - - Student email (optional) -

\$5 Make-Ahead Challenge Selected (see back):

Topic/Title (If applicable):

Special Requirements?

Working on a team? List your co-creator(s) here:

Are you able to set up on Sat. 11/18 at 9:30 am? Are you able to pack up on Sat. 11/18 by/at 3pm?

Do you plan to stop by any "Drop-in STEAMfest Workshops" at the Lancaster Public Library? (Registration **NOT** required)

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How did you hear about STEAMfest? Can you volunteer @ STEAMfest (2 hr. shift)?

I give my child permission to participate in STEAMfest activities and understand I must attend with my K-8 child(ren).

Parent/Guardian Signature Amount included \$

STEAM^{fest} \$5 MAKE-AHEAD CHALLENGES: SOMETHING FOR EVERYONE! Sign Up opens 10/6, due 10/16

Projects delivered to schools/classrooms on 10/19 and 10/20

For projects 1-5, you will receive a project guide and STEAM^{fest} display board kit so you can make your best impression. At STEAM^{fest}, you'll spend about 45 minutes in the Display Area (10-10:45 am), presenting your project once to a Mentor who knows your topic area (in turn with a few peers with similar interests) No "judging" or "scores," just questions, ideas and encouragement. Then your display stays up for all to see, while you are free to enjoy the rest of STEAM^{fest}!



1. CLASSIC SCIENCE EXPERIMENT: This is the real deal for those students who are ready to sweat a little for the sake of making a STEAM^{fest} discovery! You can do this -- Pushing into the great unknown is simply a step-by-step process using the scientific method, but each step takes time and is essential to your success.



2. SCIENCE DEMONSTRATION: Perhaps you already know the outcome of a process or experiment, but you'll have lots of fun repeating it (for example, making a baking soda and vinegar volcano). Explain the science behind the demonstration and include extensive visuals and/or the experiment itself.



3. RESEARCH DISPLAY: Become an expert! Pick a STEAM related topic that you love and read, look, watch, think, ask grow-ups, do, organize and categorize your facts and details, and then show us everything you know, and why we should love your favorite thing too!



4. REVERSE ENGINEERING: Also known as: "Learning by Breaking Stuff." You investigate the technological parts and principles of a device,

through analysis of its structure, function, and operation. What's the best way to analyze how it works? Take it apart!

1. Locate a mechanical or electronic product (example: toaster), then
2. GET PERMISSION AND HELP FROM YOUR ADULT! And
3. Disassemble the product; mount and label all components, then
4. Provide a written/illustrated description of the operation and function of all components
5. Describe how the product is used, who uses it and how you might improve it.



5. INVENTION! Think it up, then...

1. Give your new baby invention a name! Then...
2. Label a drawing showing at least two viewpoints of your invention, then...
3. Make a model (It doesn't have to be actual size: if your invention is actually really tiny make it big enough that we can see the details; if it's actually really huge, PLEASE scale it down to fit on the table! Then...
4. Provide a written description or video of your invention's details: What would it be made of... why? How would it be made? How is it used? Why would it would be beneficial? TIP: An eye-catching advertisement or commercial can show off all the information that makes your invention great... Don't forget to tell us how much it costs so we can start saving up!



6. CAR STAR! You will receive a basic pine wood car kit, but remember, at STEAM^{fest} it is not all about speed! Can your vehicle... Transport something fragile? Or, Haul something heavy? Or, Make a noise as it moves? Or, Look cool? Or, Teleport? (Just kidding.) Cruise your creation on the **STEAM^{fest} Test Track** with your fellow Car Stars! You can even make modifications and go again! Park your car for all to see, and enjoy the rest of STEAM^{fest}!



7. SUPER SUBMARINER! You will receive a kit to create your own basic submarine from a pop bottle -- the rest is up to you! Can your sub... Get the look of a real sub from history? Or, Submerge and come back? Or, Move across a tank? Or, Drop or snag something at the bottom? Or, Keep a toy dry inside? Or... Make a splash in the **STEAM^{fest} Test Tank** along with your fellow Super Submariners during your assigned time slot. You can even make modifications and go again! Then dock your sub for all to see, you are free to enjoy the rest of STEAM^{fest}!



8. WIRE WINNER! You will receive a kit to make your own wood and wire optical sculpture! Go from snarly to gnarly in the blink of an eye -- it's all about your vision and perspective! It looks like a tangle from every angle, until... you look at it from just the right perspective and your carefully crafted, secret image is revealed!

BONUS: Have fun watching people crane their necks around until they finally reach that AHA! moment.



9. BRIDGE BOSS! Perfect for clubs/teams! You receive: 200 Popsicle sticks + wood glue, then add 20 pounds of canned food gathered by you = no problem! but how much MORE can your bridge hold?? Find out who the true Bridge Boss will be at right at STEAM^{fest}, when everyone brings canned goods to push your bridge past the breaking point, with all the food going to the Trinity Food Pantry!



10. CAN-TASTIC ARCHITECT! Perfect for Clubs/teams! You get a 4'x4' space at STEAMfest... You gather a big pile of canned and non-perishable food from everyone you know, then start planning and stacking... What can you create in your 4x4 space? You get to "wow" the STEAM^{fest} crowd with your sculpture or structure, and then all the canned food goes to the Trinity Food Pantry! TIPS: Going tall? Use sheets of cardboard (ie, cereal boxes) between layers for stability. Got a color scheme? Try construction paper can wraps! (Don't forget to keep original labels intact!)