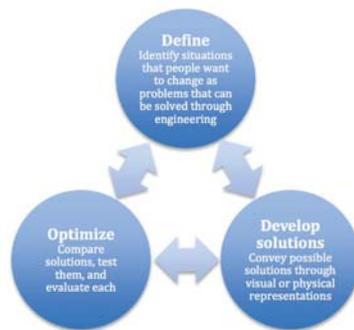


EGG STEAM WEEK

Purpose: School wide Easter STEAM competition to engage kids in Science echnology Engineering Art and Mathematics.



Grades K-2 Engineering design in the earliest grades introduces students to “problems” as situations that people want to change. They can use tools and materials to solve simple problems, use different representations to convey solutions, and compare different solutions to a problem and determine which is best. Students in all grade levels are not expected to come up with original solutions, although original solutions are always welcome. Emphasis is on thinking through the needs or goals that need to be met, and which solutions best meet those needs and goals.



More detailed NGSS K-2 information pdf

<http://www.nextgenscience.org/sites/default/files/K-2%20ETS-ED%207.1.13.pdf>



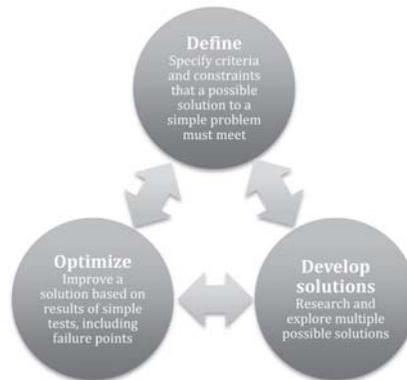
<https://www.youtube.com/watch?v=owHF9iLyxic>



<https://www.youtube.com/watch?v=fxJWin195kU&spfreload=1>



Grades 3-5 At the upper elementary grades, engineering design engages students in more formalized problem solving. Students define a problem using criteria for success and constraints or limits of possible solutions. Students research and consider multiple possible solutions to a given problem. Generating and testing solutions also becomes more rigorous as the students learn to optimize solutions by revising them several times to obtain the best possible design.



More detailed NGSS 3-5 information pdf

<http://www.nextgenscience.org/sites/default/files/3-5%20ETS-ED%206.24.13.pdf>



3rd-5th <https://www.youtube.com/watch?v=UZBSsPiOE2Y>

EGG STEAM CHALLENGES

1st Grade: [Egg Boat](#)

2nd Grade: Egg Drop <http://buggyandbuddy.com/stem-kids-egg-drop-project/>

3rd Grade: [Egg Parachute](#)

4th Grade: [Egg Vehicle](#)

5th Grade: [Egg Lift](#) (substitute egg for tennis ball)

Apply the “A” in STEAM

How Do We Solve the STEM vs. STEAM Conundrum?

Let’s circle back to the question of how to include the arts in STEM in an authentic way. We could change the scope of STEM so that it focuses equally on learning in all subject areas—but why do that? We already have effective teaching methods for doing that: problem-based learning.

So let’s try another question. Can we combine art with just one of the STEM subjects—perhaps science—and ignore meaningful subjects like math and engineering? We certainly could—but that would be just art and science, not STEAM.

What about having students do individual STEAM projects? Again—that’s not faithful to basic STEM principles, which always include teamwork. So would that be STEAM or just a good individual project?

I propose we shape STEAM programs by exploring opportunities where art naturally fits in the STEM arena. Art can be treated as an applied subject—just like math and science. Here are a few ideas for giving STEM projects some STEAM:

- **Design.** Art can serve a practical function. Students might apply design and decoration to products that were created during the course of a design challenge. They could use computer graphics to create logos or stylized designs to include in communications or presentations. Through industrial design, students could improve the appearance, design, and usability of a product created during a STEM project.
- **Performing arts, such as drama and speech.** What about technical or persuasive writing? Those arts fit naturally into the “Communications” stage of the engineering design process. They would work well as part of a STEM project. (If you want students to get REALLY ambitious and creative, check out this video of [students in Paraguay](#) who made instruments out of discarded materials!)
- **Creative planning.** As students brainstorm solutions for an engineering problem, encourage them to adopt a playful, inventive, artistic approach. Calling on their artistic right brain can help them to generate more creative and innovative thinking.

Just one word of caution, though. Art is often touted as a method of adding creativity to STEM—but keep in mind that engineers are rarely lacking for creativity and ingenuity. Just look at the world around you for proof. The purpose of STEAM should not be so much to teach art but to apply art in real situations. Applied knowledge leads to deeper learning.

Forest Ridge – OLE families,

During the month of April our students will be engaged in 2 or 3 major real-world projects.
(We are sending this packet home before Spring Break, so those of you that choose to, may get started with the other projects as well, during the week.)

April 3rd - 7th Arbor Week in our school and in our community

We encourage you to complete the family Arbor Art, to return on or before April 6th

At HOME - All School Family ARBOR ART project
(project description attached)

April 10th - 14th

EggSTEAM EggStravaganza!!!

S.T.E.A.M. stands for **Science Technology Engineering Art and Mathematics**
(To learn more about S.T. E. A. M. please check out our school website)

AT HOME - Families will complete grade level Egg Steam Challenge project by Friday, April 14th for the

EGG CHAMP DEMONSTRATION!

The entire school begins under covered area for viewing Egg Champ demonstration in Egg Catcher, Egg Descent Vehicle and Egg Drop.

This will be followed by
Egg Boat, Egg Sail Boat, and Egg Catapult demonstration.

April 17th - 22nd

Earth Rocks! Week

O.L.E. students will be educating the school and our community about our actions to show care and concern for animals, the environment, and the human community.



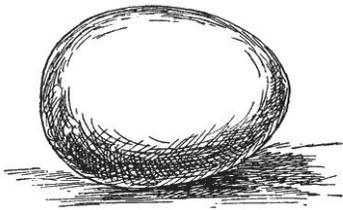
All families are invited to attend



SHOW April 18th at 2:30

TEACHER PACKET:

Arbor Week (+ send home project)



EGG STEAM WEEK (+ send home project)

Earth Rocks Week

