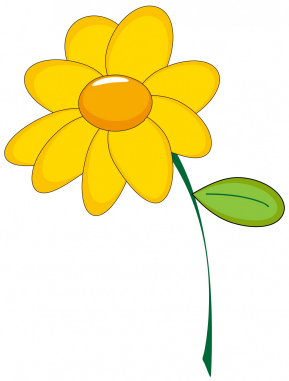
Plants & Animals

Essential Question: How do plants and animals work together?



Plants need animals and animals need plants! We are kicking off this lesson series with flower dissections and bee explorations to learn the wonders of pollination. Students will also have the opportunity to start an engineering project that they can share with family and friends! Be watching in the upcoming months for other plants and animals lessons!

NGSS Standards:

- 2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
- K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

You will need to provide the following materials for this lesson:

- 1 flower per student – Alstromerias work best. We purchase ours at Dillons ($5/bunch) or Wal-Mart. You can also go ditch diving for wild flowers if you wish, but make sure you have flowers with 1 pistil and multiple stamens. Compound flowers are very hard for students to determine which are pistils and which are stamens. Visible pollen is a must. If your flowers aren't producing pollen yet, cut off the bottoms off the stems and place in slightly warm water, which will speed the process. Therefore it is best to get your flowers a few days before your lesson.
- Magnifying glasses if possible (1 per student) – I can send these if you don't have access to them.
- Variety of clean recycled materials (you can have your students bring some from home). I would tell each student to bring a maximum of 3 pieces of "clean trash" that they could use to construct an animal. See note attached that you can send home to parents. Alternative: if your school prefers that students don't bring items from home due to COVID, you can provide each student with a disposable cup (Solo cup).

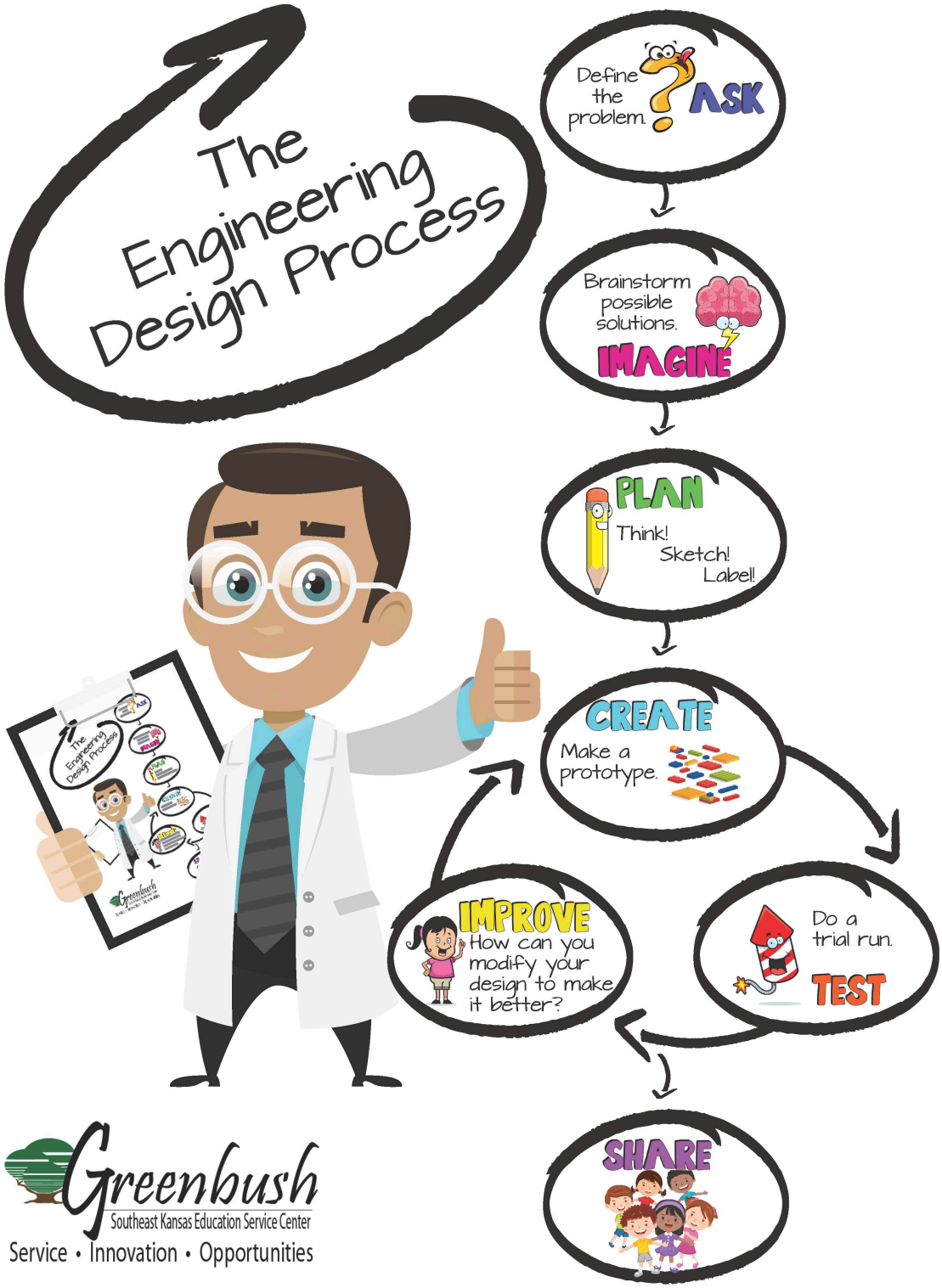
- Variety of craft supplies (construction paper, pipe cleaners, cotton balls, beads, yarn etc.) Kids are creative and will figure out uses for things that we adults have never thought of, so anything will work!
- Students will need access to their normal school supplies (scissors, glue, pencils, paper)
- **Note: Don't cancel your lesson if you don't have access to flowers and magnifying glasses. I prefer for students to do the flower dissection in class with me, but I will show them the flowers under document camera or microscope if they aren't participating in the actual flower dissection.**

Teacher preparation prior to the lesson:

- Get flowers
- Gather Materials Listed
- Set out craft supplies in a central location
- Make copies of Engineering Design Process (attached – 1 per student)
- Send home attached note if you wish for students to bring recycled materials from home (Be sure to fill in date prior to making copies!)

Lesson Overview: (Materials Needed)

- Discuss essential question (no materials needed)
- Flower Dissection (Flower, scissors, magnifying glass – 1 each/student)
- Bee Observation (no materials needed)
- Seeds Activity (no materials needed)
- Engineering Project (copy of engineering design process (1 per student), recycled materials, blank paper, pencil, scissors, access to craft supplies) – I will take you through the process and students can finish up following the lesson.



Greenbush
Southeast Kansas Education Service Center
Service • Innovation • Opportunities

Parents,

Our class is participating in a virtual science program with teaching staff from Greenbush. As part of that learning experience, students will be completing a project using the Engineering Design Process to design/create a newly invented animal that can pollinate or carry seeds. For this project, students will need some recycled materials. Students should bring 3 items max! Items could include plastic containers, empty boxes, empty can, small pop bottle, etc. Please ensure that all items are completely clean/sanitized! Due to COVID we will not be sharing items, so your student will use what he/she brings to school! Please send materials to school by the following date:_____.

Thank you!

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Thank you!

Program Connection Information

Please use an external microphone (conference style) rather than the integrated one in the computer for the audio for your class and locate it centrally in the room. It can be difficult for the Greenbush teacher to hear the students using the computer microphone and therefore it reduces the interactive nature of the lesson. It is fine to use the computer webcam for your video source.

All classes will take place using Zoom desktop video. If your building is already set up to use a desktop video application with a computer, simply open a browser and enter https://greenbush.zoom.us/j/2326746414 in the URL space. You may need to download Zoom launcher software (free download) if you don't already have it. This needs to be done in advance of the lesson.

If using a Polycom video conferencing unit (or any legacy type video conferencing unit) to connect to a ZOOM conference, make sure the unit is in "encrypted mode" then dial the following IP on the internet: 162.255.37.11 or 162.255.36.11 and once connected, they will ask for a MEETING ID: enter 232 674 6414 (for Lisa at Science Center).

It's always a good idea to touch base with your district technology facilitator prior to your program to make sure all systems/equipment are in place and operational and that there aren't any firewalls in place that might prevent you from connecting to Zoom.

Once you connect, you will enter a Zoom waiting room. Your Greenbush teacher will admit you into the final meeting room.

If you have questions, please call Lisa Little at Greenbush, 620-724-6281, or email at lisa.little@greenbush.org (best method of contact).