

LPB's VIRTUAL GIRLS ROAD TRIP TO THE MUSEUM



Hello fearless explorer!

It's time to take a road trip through time with LPB and the LSU College of Science.

Get ready for LPB's Girls Virtual Road Trip, a fun-filled online/interactive learning experience that will take you on a guided tour of our planet's past and give you a glimpse of what new discoveries might mean for its future.

Our journey will begin Saturday, June 13, with a sneak peek of LPB's upcoming three-part series Prehistoric Road Trip. Emily Graslie, chief curiosity correspondent at the Field Museum and host of the YouTube series The Brain Scoop, will be your guide for an epic road trip through America's fossil country.

Next, you will get a chance to hear from women scientists representing several fields in the LSU College of Science: geology, ornithology, mammalogy, and ichthyology. GIRL POWER is well represented by scientists from LSU!

And, you will have an opportunity to don your scientist cap and conduct some experiments of your own by using the Girls Virtual Road Trip activity kit. Get ready to discover real fossils, analyze critters, create your own specimen, and extract real DNA.

Each kit includes:

- Fossil excavation kit – learn to identify fossils.
- Build a specimen kit – create an animal specimen out of clay.
- Catch a specimen kit– catch and release a backyard critter.
- Strawberry DNA extraction – instructions for a fun activity using household materials.

Your kit also includes a cool t-shirt created just for science explorers, LSU College of Science swag, and a suggested summer reading and resources list from the East Baton Rouge Parish Library.

Show us your science swagger.

Photograph and video your science experimentation and share on social media. Don't forget to tag us @lpborg and @lsuscience. Use hashtag #LPBRoadTrip.

Get ready. Get set. EXPLORE!

LPB's Girls Virtual Road Trip to the Museum is hosted in partnership with the LSU College of Science and Geaux Science Explorations (which is funded by the Halliburton EAB Foundation).

Prehistoric Road Trip is a production of WTTW. Major funding for Prehistoric Road Trip is provided by The Negaunee Foundation. Funding is also provided by The Arthur Vining Davis Foundations, The Grainger Foundation, and The Robert Thomas Bobbins Foundation.



College of Science



Emily Graslie

GETTING EXCITED ABOUT SCIENCE WITH PREHISTORIC ROAD TRIP

Get ready for a road trip like no other! Prehistoric Road Trip is a brand new three-episode miniseries airing on LPB that will take you and your family through America's fossil country. Emily Graslie is the host, writer, and executive producer. She is the "Chief Curiosity Correspondent" at the Field Museum, but you (or your kids) may know her from her very popular YouTube series The Brain Scoop.

Graslie's epic road trip has us exploring the American West from Illinois to Montana and Nebraska to North Dakota. She'll encounter mysterious creatures and bizarre ecosystems that have shaped Earth as we know it...and maybe get younger minds excited about science while she's at it. Each of the three episodes examines different eras in time, focusing on geology, ecology, and environment. Graslie examines the fossils of former plants and animals to get an idea of what North American landscapes and dinosaurs would have looked like millions or even billions of years ago.

Filmed in stunning 4K resolution and using state-of-the-art drone technology, Prehistoric Road Trip is a treat for the eyes as well as the mind. For more information, go to: www.lpb.org/roadtrip

WHEN TO WATCH:

Prehistoric Road Trip Ep. 1 – June 17 @ 9pm
Prehistoric Road Trip Ep. 2 – June 24 @ 10pm
Prehistoric Road Trip Ep. 3 – July 1 @ 9pm

"Prehistoric Road Trip" is a production of WTTW.

GIRLS VIRTUAL ROAD TRIP TO THE MUSEUM ACTIVITY SCHEDULE

Saturday, June 13, 2020

10:30 a.m. to 10:40 a.m.	Welcome
10:40 a.m. to 11:15 a.m.	Sneek peek of Prehistoric Road Trip
11:15 a.m. to 11:40 a.m.	Breakout discussions with LSU women scientists
11:40 a.m. to 11:50 a.m.	Strawberry DNA Extractions
11:55 a.m. to 12 p.m.	Wrap Up

How do I access the road trip?

You will receive an email with instructions for accessing the virtual roadtrip. If you have not received instructions by June 10, please email cspillane@lpb.org or call 1-800-272-8161 ext. 4453.

MEET OUR LSU SCIENTISTS



Dr. Janet C. Buckner is a postdoctoral researcher and lab manager at the LSU Museum

of Natural Science. Her research focuses on macroevolution in terrestrial vertebrates, particularly mammals and birds.



Anna Hiller is a PhD student at the LSU Museum of Natural Science. She studies how bird species form in the Andes mountains of South America and how these species got to be so colorful.



Jessie Salter is a PhD student at the LSU Museum of Natural Science where her doctoral research focuses on the systematics, population genomics, and plumage evolution of bobwhite quail.



Teisha King is a PhD student in biological sciences. Her current research focuses on the interactions between the reproductive and immune systems in the African cichlid fish, *Astatotilapia burtoni*.



Dr. Sophie Warny is a professor of palynology (the study of microfossils of pollen, spores, and dinoflagellate algae) at the LSU Department of Geology & Geophysics and a curator at the LSU Museum of Natural Science.

ACTIVITY INSTRUCTIONS

Let's excavate fossils!

The fossil excavation kit contains five fossil specimens including a snail, stony coral, snail aggregate, fossilized shark tooth, and fossilized resin. The kit also includes an instruction manual and tools to excavate the fossils from plaster block.

Build A Specimen

First, what is a specimen? A specimen is an individual animal,

plant, piece of a mineral, etc., used as an example of its species or type for scientific study or display. For this activity, you will use Crayola Model Magic Clay to create your own unique specimen. Use the label to describe your specimen. Don't forget to note the name of your specimen, the date it was created, and where it can be found. Then use the tie to attach the label to your creation.

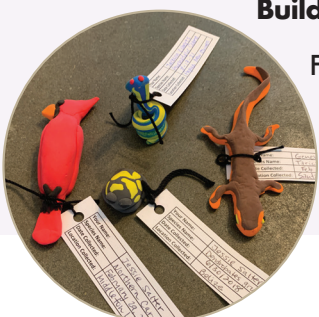
Catch A Specimen

Explore the outdoors and catch a small specimen to observe. Your activity kit includes just about everything you need to catch and analyze your specimen including a habitat, net, tweezers and magnifying glass. As part of your

analysis, describe the type of animal you found (ex. amphibian, reptile, insect, etc.) Where did you find it? How big is it? What color is it? Is it bumpy or smooth or hard or soft? Does it have wings?

Now, put on your citizen scientist cap. A citizen scientist is someone from the general public who helps scientists collect data or information. You can become a citizen scientist by downloading the inaturalist app and sharing your observations with scientists and other citizen scientists from all over the world.

Learn more at inaturalist.org



Strawberry DNA Extraction

For this activity you will need an adult to help you gather the materials for your experiment. You will need:

- Water (6 tbsp)
- Dish soap
- Salt (1/4 tsp)
- Strawberries (1-3)
- Zipper-lock sandwich bag
- Fine mesh strainer
- Small glass container
- Smaller glass container
- Isopropyl alcohol (at least 55%, chilled in freezer)
- Kitchen spoon
- Measuring spoons (tablespoon,

- teaspoon, 1/4 teaspoon)
- Tweezers
- Small dish to examine DNA

Instructions

1. Measure 90 ml (6 tbsp) of water into a small glass container.
2. Add 2 tsp dish soap to the water.
3. Stir in 1/4 tsp salt and mix until the salt dissolves. This is the extraction mixture.
4. Place 1-3 strawberries into a plastic zipper-lock bag.
5. Pour the extraction mixture into the bag with the strawberry.
6. Remove as much air from the bag as possible and seal it closed.

7. Mash the strawberry inside of the bag. You don't want any large pieces remaining.

8. Pour the resulting strawberry pulp and extraction mixture through a strainer back into the glass container.

9. Use a spoon to press the more of the mashed bits of strawberry against the strainer to get more of the mixture through.

10. Pour the strained mixture into a smaller glass container (~100 ml beaker).

11. Add 1 tsp (or more) of chilled isopropyl alcohol. You should see a white layer forming at the top. This is the DNA. If you don't see it - add more alcohol.

12. Use tweezers to gently remove the DNA from the solution and onto a dish to examine.