Turn in your kit with samples!

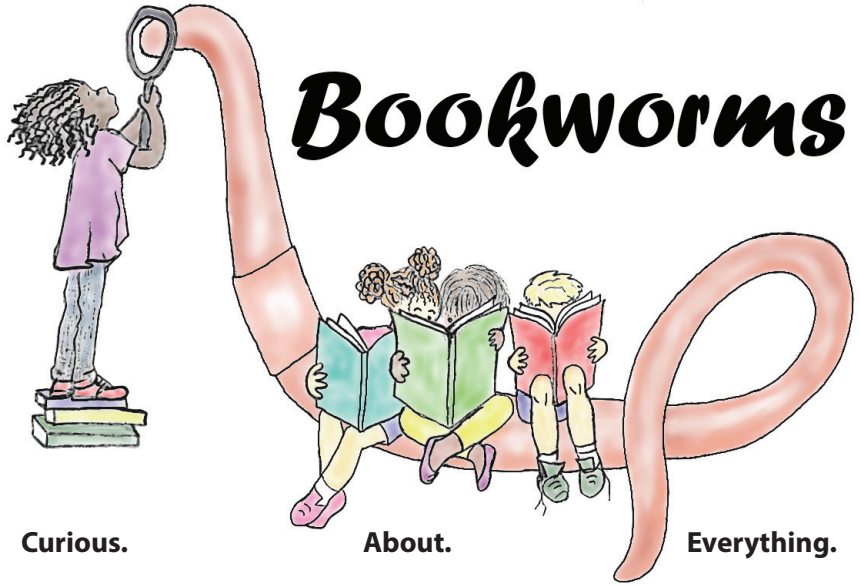
3 Ask your adult to complete the information below. Place the form inside the bag with your samples and deliver your Bookworms kit to any Indianapolis Public Library location. Scan the QR code for locations.

Upon receipt of your Bookworms samples, you will receive a certificate officially recognizing you as a **Community Scientist**! Once IU Indianapolis scientists receive and analyze your samples, you will receive an email message with your results along with ways to keep you safe from lead.

Thank you for joining the Bookworms project and helping scientists better understand the environment where you live. Please complete the information below (required information listed in **bold**, with an *):

First name of person collecting kit samples
Name of parent or guardian*
Email of parent or guardian* (required to receive kit results)
Location Name/Address where kit samples were collected*
City, State, Postal Code
Sample locations (check one)*: ☐ **Home** ☐ **Public Property**

☐ **No worms harmed option!** Check this box if your child feels bad about sampling worms and only wants to collect soil.



Welcome to Bookworms! This community science project will help you learn more about how environmental science is done in your environment and how metals in soil can impact the animals living there. In the process, you will also be helping to collect information about soil health!

Worms are fantastic biomonitors, a scientific term meaning we can gauge the health of an ecosystem by examining the health of the earthworms living there. Because earthworms eat organic matter in the soil, and because soil contaminants, such as heavy metals like lead, stick to that same organic matter, earthworms living in contaminated soil tend to have high contamination in their bodies. Scientists call this bioaccumulation.

The Bookworms Project seeks to improve our knowledge of soil contamination here in Indiana through increased environmental sampling. The project will let us produce better soil quality maps in Indiana towns and cities and provide new insight into how metals accumulate in the bodies of organisms living in these systems.

INDIANA UNIVERSITY INDIANAPOLIS

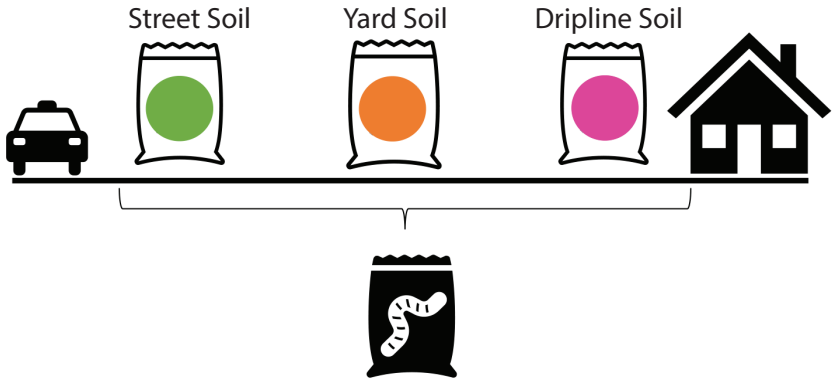
Collect Kit Samples in Three Easy Steps

Choose where to collect samples!

1

Collect samples at your home or public property (park, school, or playground). At your chosen location, you will collect three soil samples and up to 15 earthworms. Please check the box on the registration form if you sampled from public or private property.

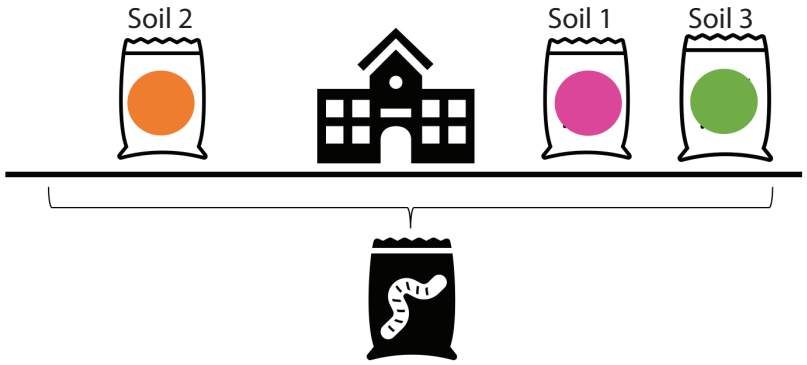
Sampling at Your Home



5 to 15 earthworms from multiple locations

OR Sampling on a Public Property

Three soil samples from anywhere on the property



5 to 15 earthworms from multiple locations

Collect your samples!

2

Tools you will need to get started:

- This kit
- A metal spoon or garden trowel for digging
- Pen or pencil for writing

Collecting Soil

If you sample your home, please collect your soil samples from three specific spots; near the street (green dot bag), in the yard (orange dot bag), and by the side of your house at the dripline (pink dot bag). If you sample a public location, collect three soil samples from anywhere around the site. Please sample soil from the upper two inches only. Try to avoid collecting large sticks, rocks, or lots of plant matter. Fill the bags of soil as shown in the diagram.

Collecting Worms

Collect between 5 and 15 earthworms from around your chosen location. To sample a worm, place a worm inside the black plastic bag, then close and lightly shake the bag to ensure the worm is coated in desiccant. Good places to find earthworms are near the dripline of your home under rocks or logs, in your yard by digging under the grass with a shovel, or on sidewalks after rainstorms. Good-sized worms for sampling are between 3 and 8 inches in length.