

## Return your kit!

Step

3

Fill out the information below and return your Bookworms kit by mail to the address provided, or by bringing it in to a drop-off location.

After receiving and analyzing your kit, we will send you an email with your free book voucher redeemable at any Barnes & Noble nationwide.

Thank you for joining the Bookworms project and helping to better understand the environment in the city where you live. Please fill out the information below (required information listed in **bold**):

First name of person completing the kit:

Name of parent or guardian:

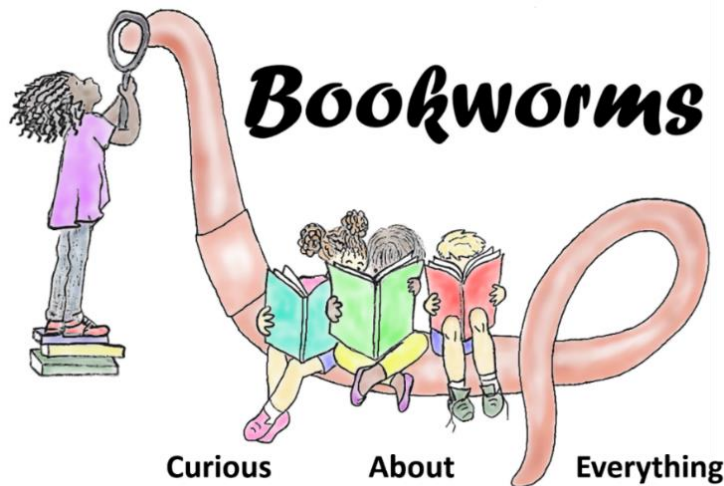
Email of parent or guardian (must be an active email to receive kit report and free book voucher):

Address where kit was completed:

No worms harmed option (check this box if your child feels bad about sampling worms and only wants to collect soil):

Mail completed kits, and this sheet, to the address below, or bring them to a drop-off location listed at [www.booksandworms.org](http://www.booksandworms.org)

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## Welcome to Bookworms!

We are happy to welcome you to the Bookworms Project! This community science project will help you learn more about how environmental science is done, the environment you live in, 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 quality across Indiana!

Worms are fantastic biomonitors, a scientific term meaning we can gauge the health of an ecosystem by examining the health of earthworms living there. Because earthworms eat organic matter in the soil, and because soil contaminants (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.

# 3 steps to complete your kit!

## Step

1

### Choose where to sample!

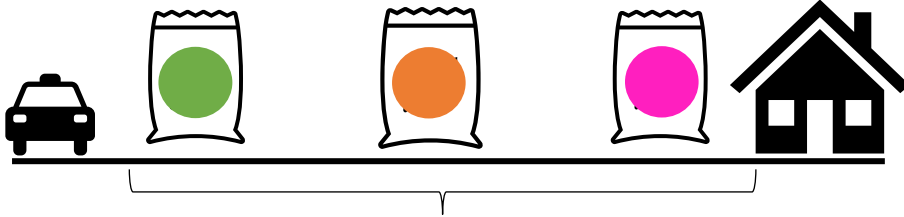
Choose to sample your home or a public property (i.e., a park, library, school, or playground). At your chosen location, you will collect three soil samples and up to 15 earthworms. **Please check the box below to indicate your preferred location.**

### Sample Your Home

Street Soil

Yard Soil

Dripline Soil



My Location

5 to 15 earthworms from multiple locations

### Or Sample A Public Property

3 soil samples from anywhere on the property

Soil 2

Soil 1

Soil 3



My Location

5 to 15 earthworms from multiple locations

## Collect your samples!

## Step

2

Tools you will need are:

- This kit
- Something for digging (metal spoon or small shovel)
- 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 2 inches only. Try to avoid collecting large sticks, rocks, or lots of plant matter. Fill the bags of soil as shown in the diagram to the right.



### Collecting Worms

Sample between 5 and 15 earthworms from around your chosen location. To sample a worm, place a worm inside the **black plastic bag**, close and lightly shake the bag to ensure 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.

