



Grades 2-7

# Pollution

Learning Lapbook with Study Guide



A Journey Through Learning  
[www.ajourneythroughlearning.com](http://www.ajourneythroughlearning.com)

**Authors-Paula Winget and Nancy Fileccia  
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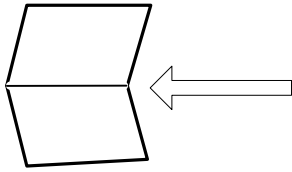
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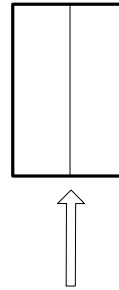
**SAMPLE PAGE**

# Things to Know

**Hamburger Fold**-Fold horizontally



**Hotdog Fold**-Fold vertically



**Dotted Lines**-These are the cutting lines.

**Accordion Fold**-This fold is like making a paper fan. Fold on the first line so that title is on top. Turn over and fold on next line so that title is on top again. Turn over again and fold again on the next line so that title is on top. Continue until all folds are done.

**Cover Labels**-Most of the booklets that are folded look nicer with a label on top instead of just a blank space. They will be referred to as "cover label."

## How Long Does it Take to Complete the Lapbook?

Doing a study guide page and mini-booklet a day, a 3-folder lapbook takes about one month to complete. However, you can expand the study portion and make it last as long as you like! That's the beauty of homeschooling! Do it YOUR way!

## Lapbook Assembly Choices

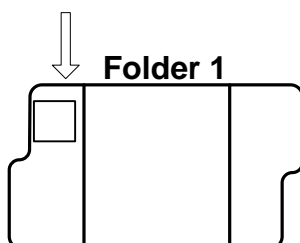
(see photos on how to fold and glue your folders together)

**We recommend using Zip Dry Glue or Elmer's Extreme.**

Choice #1 -Do not glue your folders together until you have completely finished all three folders. It is easier to work with one folder instead of two or three glued together.

Choice #2 -Glue all of your folders together before beginning. Some children like to see the entire project as they work on it. It helps with keeping up with which folder you are supposed to be working in. The choices are completely up to you and your child!

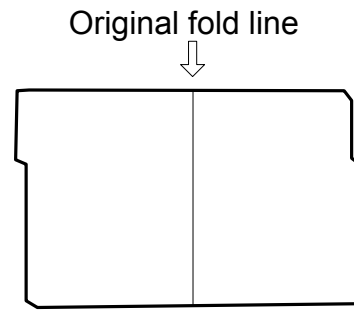
## How do I know where to place each template in the folder?



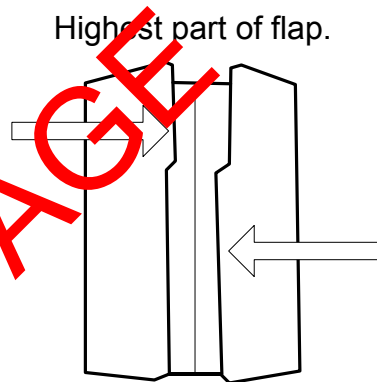
This placement key tells you the template goes in the first folder at the top of the left flap.

# Folding a Lapbook Base

Gather the number of folders required for the project. Fold them flat as seen here.



For each folder, fold the left and right sides inward toward the original line to create two flaps. Crease so that the highest part of each flap is touching the original line. It is important not to let the two flaps overlap. *You may want to take a ruler and run it down each crease to make it sharper.*



Glue your folders together by putting glue (or you may staple) on the inside of the flaps. Then press the newly glued flaps together with your hands until they get a good strong hold to each other. Follow this step to add as many folders as you need for your project. Most of our lapbooks have either 2 or 3 folders.

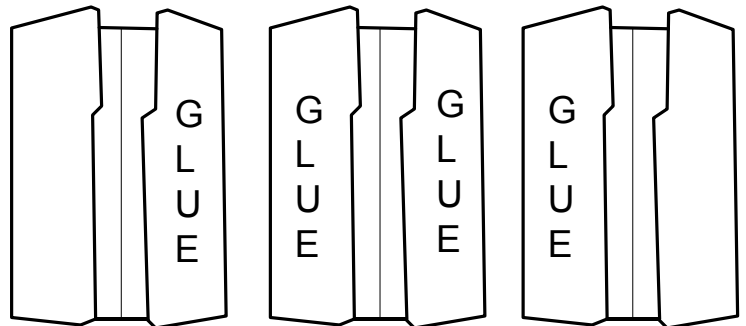
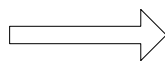


Photo of a completed lapbook base



## Supplies and Storage

- \*Lapbook Pages
- \*3 Colored File Folders
- \*Scissors
- \*Glue
- \*Stapler
- \*Brads (not needed for every lapbook. If brads are not available, a stapler will do.)
- \*Hole Puncher (again, not needed for every lapbook.)

### To make the storage system (optional)

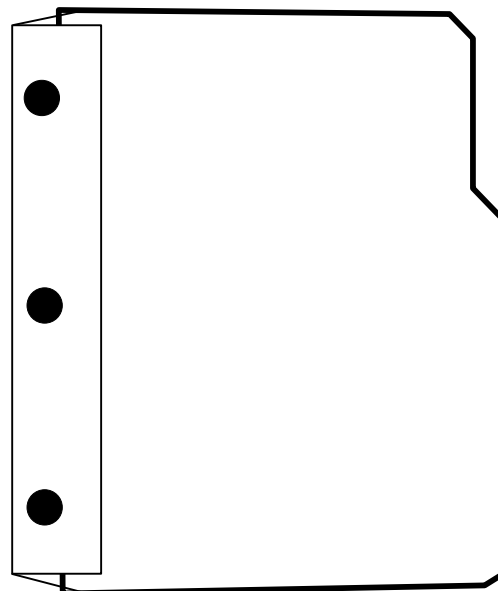
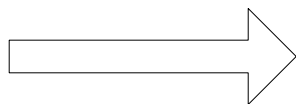
**See details below about the use of a storage system.**

- \*Duct tape (any color)
- \*One 3-ring binder
- \*Hole Puncher

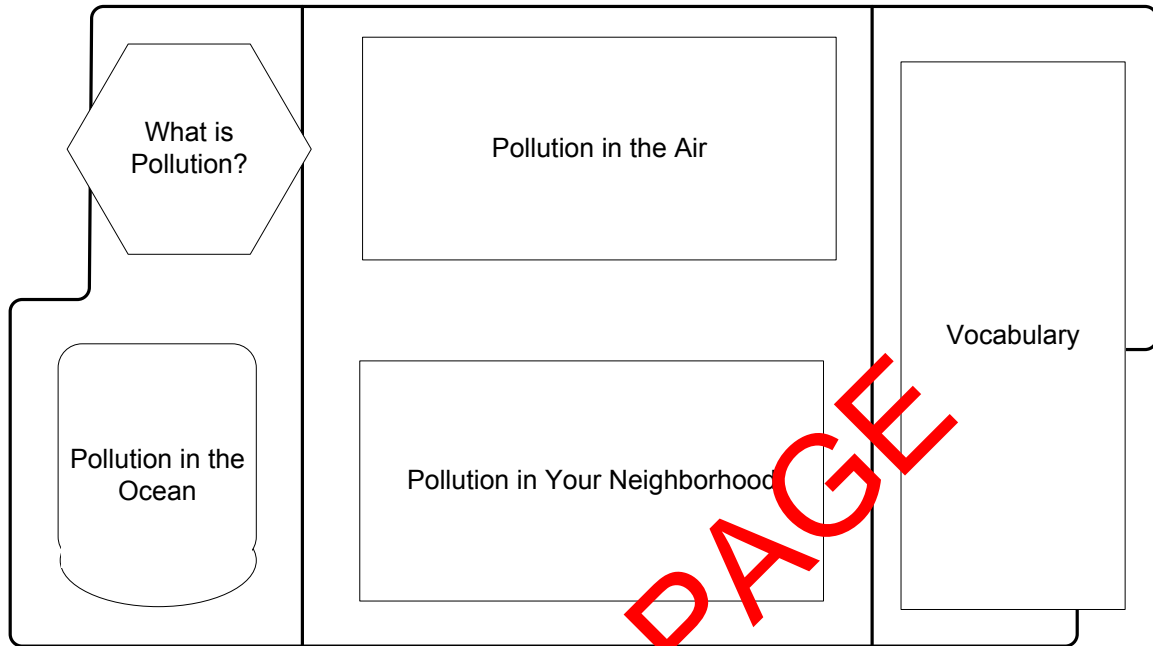
### My child has made several lapbooks. Can I store all of the lapbooks together in one place?

Yes! A three-ring binder serves as a great place to keep your lapbooks. This method of storage not only keeps your lapbooks from getting lost but also keeps them neat and readily available to share with dad, grandparents, friends, etc. When you are through sharing your lapbooks, just place the three-ring binder back on your bookshelf. Below are step-by-step directions of how to prepare each lapbook to be placed in a three-ring binder.

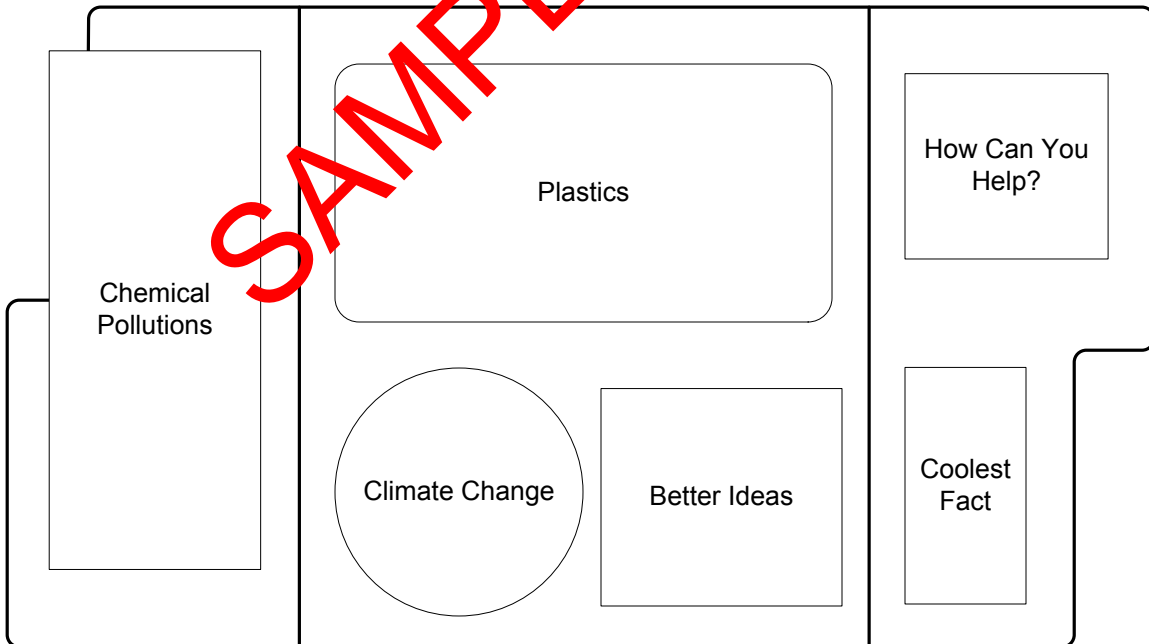
Close the lapbook. Measure a piece of duct tape that is as long as the lapbook. Place the edge of the duct tape on the top edge of the lapbook. Then fold the duct tape over so that it can be placed on the bottom edge. Make sure to leave enough duct tape sticking out from the edges to punch three holes. Be careful when punching the holes that you do not punch the holes in the folder. If you do, that's okay. Then place in three-ring binder. Depending on the size of your three-ring binder, you can store many lapbooks in it.



## Folder 1



## Folder 2



Cut out the page on the line. Glue to the front of your closed lapbook.  
By each letter, write a word that describes pollution.

P

O

L

L

U

T

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N

SAMPLE PAGE

## What is Pollution

**Pollution** is anything that contaminates the natural world. It is something that is not where it belongs. There are many kinds of pollution, and although not all of them are harmful to our earth, most are. Pollution causes disruptions of the organized and complex patterns of creation. Even the smallest and most insignificant organisms are very important in nature. A slight disruption in one system or food chain can cause problems for thousands of people and animals.

For example, a chemical released into a field may seem fairly harmless. But that chemical can seep into a nearby stream, poisoning fish and animals and making them sick. The water then runs into a river, affecting more animals. When eagles eat those sick fish, the poison may be strong enough to kill them. Coyotes, foxes, and other predators may also be killed. This could cause a sudden overpopulation of rodents in nearby towns. This is just one possible scenario that could happen when a toxic chemical is dumped into a field.

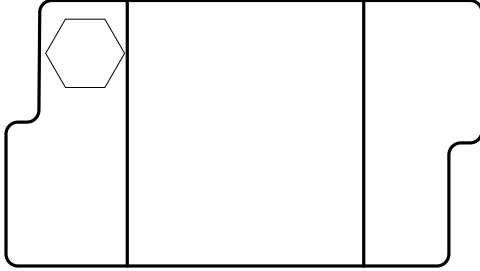
Other pollution may not have such a noticeable affect. For example, plastic in landfills breaks down very slowly, if at all. These plastics leach chemicals into the nearby ground. This happens slowly, and we don't yet know how badly or in what ways this will affect the environment in years to come. We also don't yet know how much the chemicals in plastics can affect humans, because they just haven't been around long enough for long-term studies.

Some pollution is intentional. This is the pollution you see as bottles along roads and old tires in the bottom of rivers. Intentional pollution happens when people won't take the time to throw things away properly. However, most pollution and damage to nature is unintentional. Much of our modern lifestyle causes pollution. From driving vehicles and heating our houses, to eating a steak and wearing make-up, almost everything in modern society can effect the natural order of creation. Most of these things have little or no impact alone, but when multiplied millions of times over millions of people, they start disruption the environment.

There are many different kinds of pollution, and they may cause different problems depending on where they are found and what they are made out of. But there are many things that can be done to help take care of the beautiful earth that we all call home, like cleaning up, making less trash, recycling, using new earth-friendly vehicles and other inventions, and paying attention to the needs of the wildlife and plants around us.



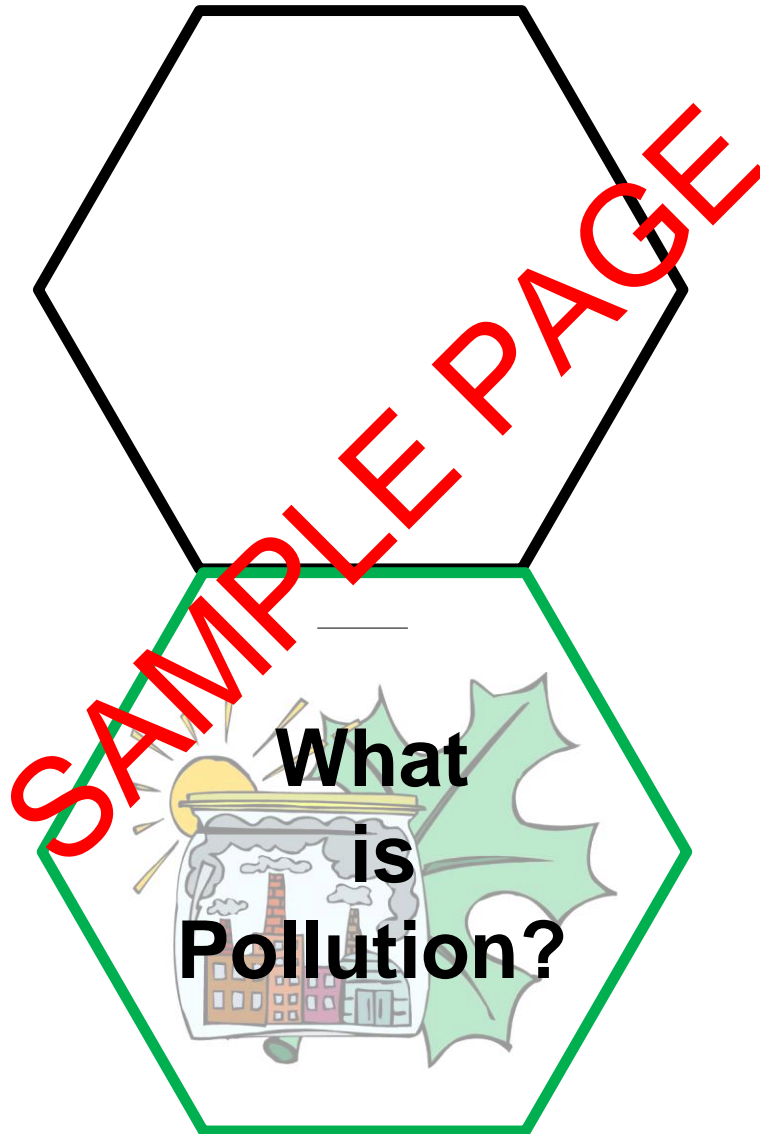
## Folder 1



### Read What is pollution

Cut out booklet as one piece. Fold in half. Glue into lapbook.

**Directions:** Inside of the booklet, write what you have learned.



## Pollution in the Ocean

The oceans are so wide and deep that it may seem like a little pollution and trash wouldn't even be noticed, let alone have any affect on them. The oceans are a vast and complex **ecosystem**, but they are very delicate. If one thing goes wrong, it can affect the entire system. Pollution is damaging our oceans, maybe faster than any other area of our world.

Because the oceans are the drainage system of the world, many things that happen inland eventually end up causing damage in the sea. A farmer sprays herbicides on his field, which the rain washes into a creek. This chemical eventually ends up in the ocean. A factory drains wastewater into a ditch, and the water seeps through the ground into a nearby river. This ends up in the ocean, too. Even plastic and other solid pieces of trash find their way to the ocean, where currents wash them together into great heaps of floating trash.

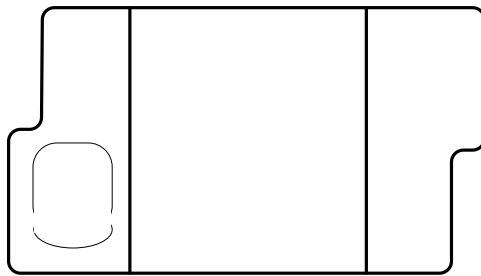
Oil is a major problem in the oceans. Some comes from oil spills, when tankers or oil drilling rigs have problems. But most oil comes from land and ships. Because oil floats on water, it can travel long distances in rivers, dumping into the ocean. Oil can also come from engines and other parts of boats and ships, during their normal operations. Oil floating on top of the ocean coats the feathers of marine animals. This oil is toxic to them and they eat it accidentally as they try to clean their feathers. Marine mammals like whales and dolphins have trouble cleaning out their breathing holes. Oil also causes many problems with the ecosystem in general.

Toxic chemicals are also a big problem in oceans. Most chemicals arrive in the ocean from the land. Agricultural chemicals such as fertilizers and pesticides are poisonous. Fertilizers cause another problem called **eutrophication**. The fertilizer causes huge areas of algae to grow, which at first may seem helpful. But the ocean is a balanced ecosystem. Too many plants means that there isn't enough oxygen in the water, so many other life forms die out, creating huge 'dead zones'. Many chemicals from industrial and housing areas are simply poisons which are killing off important creatures by the thousands. This disrupts the entire food chain.

Most places in the world do not treat their sewage before it reaches the ocean, which causes many other problems. Some of the biggest worries are the possible spread of dangerous diseases, and contaminated water. Sewage can also cause eutrophication like fertilizer.

Plastic is another huge pollutant of the oceans. Because plastic takes hundreds of years to decompose, if it ever does, there are many large areas of floating trash in the ocean. Sometimes the currents brings these trash piles up near shore, where they contaminate fragile wetlands and shore areas. Other times the currents sweep all the trash together into great floating areas of contaminates in the middle of the oceans. The largest known area is in the north Pacific Ocean. This plastic breaks down by the sun and becomes tiny particles which are not decomposing, but just floating around in the top layer of water. Because they are so tiny, animals eat them. We don't know how many problems this may cause in the future. Much of this area is contaminated with plastic, toxic waste, and other trash, but we don't know how much damage it is causing or how large it is because many of the particles are so small. Similar but smaller areas can be found in other oceans.

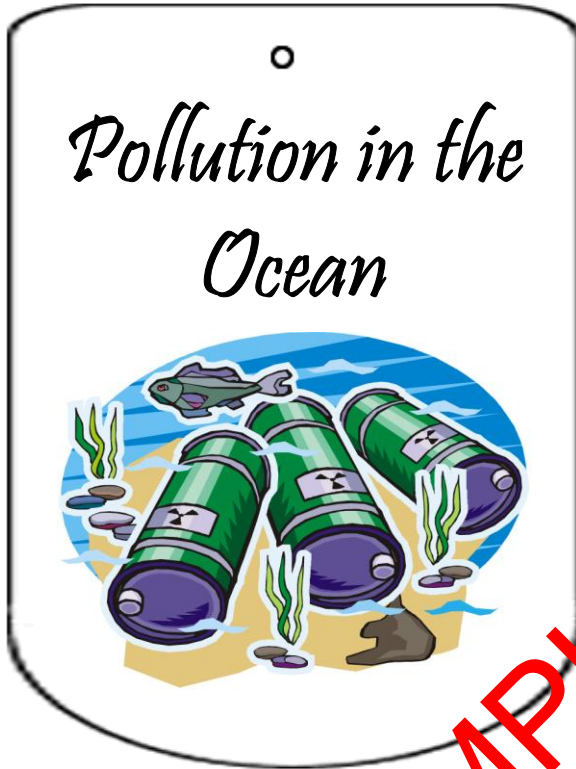
Folder 1



**Read Pollution in the Ocean.**

Cut out all pieces. Stack with title on top. Fasten at top with a brad or staple. Glue into lapbook.

**Directions:** On each booklet, write what you have learned.



Blank writing area with horizontal lines and the word *Chemicals* at the bottom.

Blank writing area with horizontal lines and the word *Oil* at the bottom.

Blank writing area with horizontal lines and the word *Plastic* at the bottom.

SAMPLE PAGE