

Lesson 5: Now We Know – So what can we do about it?

With the knowledge we've gained, what is our stormwater responsibility? Is there anything WE can do to help?

Teacher Preparation

- Using the Friends of the Rivers Clean Drains Fort Wayne website (<https://forfw.org/schools/>), sign your school up to be a "Drain Stormer School." For an overview and to become familiar with the initiative, click on the brochure and review the Drain Stormer School materials.
- Identify storm drains on school property (and the surrounding neighborhood, if appropriate).
<https://forfw.org/placing-medallions-for-clean-drains-fort-wayne/>

Materials Needed

For the class

- Friends of the Rivers Clean Drains Fort Wayne website: <https://forfw.org/placing-medallions-for-clean-drains-fort-wayne/>
- Cleaning supplies (paper towel, eco-friendly cleaning solution, scrub brush)
- Storm drain medallions
- Additional Activity: Paper, markers/crayons/color pencils

Student Activity

Setting Up the Question

We now know that we all have a role in keeping stormwater clean. After all, we live in the community and go to school! So, what can we do to help out?

1. BRAINSTORM to DRAIN STORM.

Ask students to think about the schoolyard watershed map, and what they noticed on the City of Fort Wayne map. Write the problems you discussed yesterday on the board.

Have students do a turn and talk with a partner or small group to think of ways they can help with these problems.

As they report back to the class, write their ideas on the board.

Science Standards:

6-8.E.1 Identify the criteria and constraints of a design to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

6-8.E.2 Evaluate competing design solutions using a systematic process to identify how well they meet the criteria and constraints of the problem.

6-8.E.3 Analyze data from investigations to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

8th Grade Social Studies Standards:

8.2.7 Explain the importance of responsible participation by citizens in voluntary civil organizations to bring about social reform.

8.2.9 Explain how citizens can monitor and influence the development and implementation of public policies at local, state and national levels of government.

SPONSORED BY:



Lesson 5: Now We Know – So what can we do about it? (continued)



2. INTRODUCE STORM DRAINS.

Once the list of ideas is complete, explain how storm drains could be a solution. Many times, people aren't even aware that a storm drain is nearby and they don't think about what might be going in it.

Talk with students about things that should NOT go down storm drains. (In fact, the only thing that SHOULD go down a storm drain is untainted rain water).

Give a couple of examples (dead leaves, car oil) and write them on the board. Ask students to do a short turn and talk with their ideas of other items that should not go down a storm drain.

Record what they report back.

Do we think that people know not to put these things down a storm drain? Why or why not?

Does everyone in this school (or community) know where the storm drains are?

Do YOU know where the storm drains are?

Student Investigation

1. LET'S FIND STORM DRAINS.

In small groups, direct students to the Friends of the River storm drain finder: <https://forfw.org/placing-medallions-for-clean-drains-fort-wayne/>

Have students type in the address of their school and identify storm drains on school property (and the surrounding area).

Which ones are in obvious areas?

What storm drains are in places you didn't expect?

What things might get caught in or block the storm drains based on where they are located?

2. NO, REALLY, FIND THE DRAINS!

Explain to students that it takes intention to keep storm drains clean. We can work together to remove litter and garbage away from the drains so that they work better.

Ideas to Keep Water Clean:

- Sweep sidewalks and driveways
- Use the trash bin, no the drain to throw litter away.
- Remember, your toilet is NOT the trash can.
- Pick up the doggy doo!

SPONSORED BY:



Lesson 5: Now We Know – So what can we do about it? (continued)



Students will be applying medallions to their identified storm drains. But first, they have to actually locate them in the real world and thoroughly clean off an area for a medallion to be posted.

Divide the class into the number of groups as storm drains. (It would be best to have one adult per group accompany them.)

Send the groups out (going over proper outdoor procedures) to find their drains.

Once located, have them scout out what is around the drains that they could post the medallion on. They then need to thoroughly clean and dry the area before applying the medallion.

3. TAKING CARE OF THE DRAINS.

Once everyone is back in the classroom, ask the students who should take care of clearing the drains?

- Students? How/Who would organize that?
- Staff? Which staff?
- The principal? School nurse? Custodian?
- What about after they are out of middle school? Who then?

Have them answer these questions in small groups, brainstorming ideas for how to keep the drains clean and who should be responsible.

Have groups report back and write their ideas on the board. Let students debate about which approaches may work best.

NOTE: It is advised that a longer-term maintenance plan be put in place prior to this activity.

CHECK FOR UNDERSTANDING

Now that students have gone all the way through the unit, provide a post-assessment to check for overall understanding.

Assessment ideas:

- Write a persuasive letter to the principal about why it is important to keep storm drains clean.
- Create an infographic showing what can and can not go down a storm drain.
- Create an artifact by using the Additional Activity as an assessment.

Storm Drain Messages:

Only Rain in The Drain

Be the Solution, End Water Pollution

Anything but H₂O is a NO NO!

Keep Clean for Downstream



Lesson 5: Now We Know – So what can we do about it? (continued)



DRAWING CONCLUSIONS

Even though you are young, you've identified where water goes, how it gets there, and problems that might get in the way. You've marked storm drains for your peers and community members around the school. You've already done so much to improve our community!

When you go home today, think about other things that can be done to help our rivers and streams stay healthy.

ADDITIONAL ACTIVITY:

Students can use sidewalk chalk to decorate the area surrounding storm drains. See ideas here: <https://forfw.org/drain-murals/> If there is extra time, students can draw their ideas for how to decorate the drain, including messaging.

Be sure to take pictures of the murals and share them on the Clean Drains FaceBook page (<https://www.facebook.com/FORFWA>) for school recognition at World Rivers Day!



SPONSORED BY:

