

FIELD INVESTIGATION GUIDE WE'RE ALL DOWNSTREAM



INVESTIGATE HOW WATER MOVES ACROSS THE LANDSCAPE—
AND HOW SIMPLE CHOICES HELP KEEP IT CLEAN

Where does a
raindrop go
after it lands?



INVESTIGATING QUESTION



BIG IDEA

- Every drop of rain has a destination.
- As rain moves across the landscape, it carries whatever it encounters—soil, fertilizer, pet waste, leaves, litter, and other pollutants—into streams, rivers, lakes, wetlands, and groundwater.
- Healthy landscapes help slow, filter, and absorb that water before it reaches our waterways.
- Everyone lives in a watershed.
- Everyone is downstream from someone.

Have you ever
wondered
where a raindrop
goes after
it lands?



QUICK FACTS:



Investigation Time | Reset Time

• 10–15 MINUTES

• 5 MINUTES



Audience

GRADES 3–ADULT
FAMILIES
COMMUNITY EVENTS
PROFESSIONAL DEVELOPMENT

Group Size

4–8 PARTICIPANTS
LARGER GROUPS SHOULD
ROTATE THROUGH ADDITIONAL
INVESTIGATIONS.



Learning Goals

PARTICIPANTS WILL:

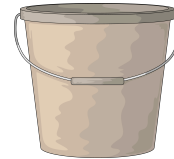
- Discover what a watershed is.
- Observe how stormwater moves across a landscape.
- Identify common sources of runoff pollution.
- Compare runoff before and after conservation practices are added.
- Recognize that individual actions affect downstream water quality.

watershed model

EQUIPMENT CHECKLIST



- ☐ Watershed model
- ☐ Model stand (if applicable)
- ☐ Spray bottles (filled)
- ☐ Pollution materials
- ☐ Sponge conservation practices
- ☐ Towels
- ☐ Drain bucket
- ☐ Printed instruction sheet
- ☐ Brooke QR sign
- ☐ Laminated watershed map



QUICK SETUP

Estimated Time: 5 minutes

1. Place watershed model on a stable table.
2. Fill spray bottles.
3. Place pollution materials beside the model.
4. Place sponge conservation practices nearby.
5. Position towels and drain bucket.
6. Test spray bottles.
7. Display Brooke QR sign.

You're ready to investigate.

HOSTING GUIDE



OPENING CONVERSATION

"When rain falls here...where do you think it goes?"

Allow visitors to share ideas.

Avoid defining "watershed" immediately.

Encourage curiosity first.



DURING THE ACTIVITY

Invite visitors to:

Place pollution materials around the community.

Predict what will happen when it rains.

Use the spray bottles to create rainfall.

Observe where the water travels.

Add sponge conservation practices.

Make it rain again.

Compare the results.



QUESTIONS TO ASK

What surprised you?

Where did most of the water travel?

Which areas absorbed water?

Where did pollution end up?

Which conservation practices made the biggest difference?

How is this similar to places you've seen after a heavy rain?



BROOKE'S NOTES:



Have you ever
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Ask
Brooke!
SCAN TO
LISTEN

BROOKE'S NOTES

"Every drop of rain begins a journey. Some soaks into the ground. Some travels across streets, sidewalks, farm fields, and neighborhoods. As it moves, it carries little pieces of the landscape with it. Let's investigate where this water goes—and how the choices we make along the way can help keep it clean."



LOOKING CLOSER

Encourage visitors to observe after their next rainfall. Can they find:

- Water flowing into a storm drain?
- A puddle disappearing into the soil?
- A grassed waterway?
- Native plants slowing runoff?
- Water entering a nearby creek?

Every community tells the same story if you know where to look.



RESEST CHECKLIST



- ☐ Empty excess water.
- ☐ Refill spray bottles.
- ☐ Return sponge conservation practices.
- ☐ Return pollution materials.
- ☐ Wipe model dry.
- ☐ Return towels.
- ☐ Empty drain bucket.
- ☐ Straighten signage.



TROUBLE SHOOTING



SPRAY BOTTLES NOT WORKING
Check nozzle adjustment.
Refill water.
Inspect for clogged nozzle.



WATER OVERFLOWING
Reduce spray amount.
Empty drain bucket.
Dry surrounding table.



PARTICIPANTS FINISH QUICKLY
Ask additional observation questions.
Encourage another round using different conservation practices.
Discuss examples from their own neighborhood or farm.

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watershed model

FIELD INVESTIGATION: WE'RE ALL DOWNSTREAM

Date: _____

Host: _____

Location: _____

Approximate Attendance: _____

Questions visitors asked:

What worked especially well?

Ideas for improving this investigation

Supplies needing replacement

**LESSONS
LEARNED**



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