

Watershed Wisdom: Learning From Home

The new PBS Learning Online lesson, [Watershed Wisdom](#), has several activities that are accessible at home via printed handouts, as well as online interactive activities. Many of these lessons are perfect to assign through Google Classrooms, Canvas, Seesaw, or any other program to share assignments with your classroom. The Lesson Plan aligns with NC Essential Standards to familiarize students with the interactions between humans and their environment as well as the sun’s role in the water cycle (4.L.1.3, 5.P.2.1, and Next Generation Science Standards 5-ESS3-1, DCI ESS3.C).

Access Free Watershed Wisdom Resources:

1. **Create a free online account on to PBS Learning Media:**
<https://unctv.pbslearningmedia.org>. Ask parents to also create a free online account to access the online materials if they will be used.

2. **Review the [5E Lesson Plan Summary](#)**
 For more details about the individual activities, visit the lesson online.

3. **Pick and choose activities to assign to your students.**
 The following activities are listed in PBS Learning Media’s recommended assignment order with any internet or printed material requirements noted and, following a 5E format. Where “internet connection” is indicated, a mobile phone or other hand-held device connected to a cellular network may also work.

Activity	Printable Handout	Requires Internet	Requires Previous Activities or other Background
Water Reporters	*		
Wadded Watershed	*		
River Avengers		*	
Hunt for H2O Bingo	*		
Ways of Watersheds		*	
Revisit River Avengers Culminating Activity		*	*

Design This!	*		*
Young Activists Activity	*		
Additional UNC-TV Segments		*	

Water Reporters Activity - *Requires: Printed handout*

Students are provided with the [Water Reporters Student Handout](#) and invited to become “water reporters” by interviewing a family member or friend about a favorite water-related memory, and to reflect about their own relationship with water.

Wadded Watershed Activity - *Requires: wax paper/paper, spray bottle with water, water-based markers | Optional: Internet connection*

Students work alone or with other household members to create model watersheds out of paper or wax paper and markers, and observe the movement of surface waters across “land”. Access the handout for teachers and parents [here](#).

Optional online activity: Students can first watch a [3 min. video](#) of teachers providing directions for the wax paper version, or a longer [6 min video](#) with directions and demonstration.

River Avengers Activity - *Requires: Internet connection*

Provide link to 3-minute [River Avengers video](#) about a group of friends investigating storm water runoff on their playground. Ask students what they think might be causing the problems posed in the animation, and what some possible solutions might be.

Hunt for H2O Bingo - *Requires: Printed handout*

Activity that is done outside around the home or in any open space that is open for use. Print out the [Bingo Card](#) with water-related words for students to write on as they walk around. Ask “where does rainwater collect? Where does it flow? Where have you noticed a little bit of water?”

Ways of Watersheds Interactive Lesson- *Requires: Internet connection*

Excellent assignment for remote learning. Students visit this [interactive lesson](#); students click on the “Launch” icon in the middle of the video screen. You can download [teaching tips here](#) as well. The lesson includes the following all-online components:

- Animated glossaries that define and illustrate terms
- Three short animations:
 - The water cycle
 - Water cycle and watersheds

- Managing your watershed
- Formative quizzes follow each of the animations
- A final review that can serve as a summative assignment for the Ways of Watersheds interactive lesson.

Revisit River Avengers Culminating Activity - *Requires: Internet connection and completion of previous Watershed Wisdom online activities*

Ask students to revisit the problem posed in the opening animation and discuss how runoff (as well as flooding and erosion) increases danger to watershed ecosystems. Using the information that they learned in the interactive lesson, how are their understandings of the problem different than when they first viewed the animation? They can write this in a journal/paper.

Design This! Activity - *Requires: Printed handout, completion of previous Watershed Wisdom online activities or familiarity with similar content*

This is a great assignment for your students to practice their design thinking to solve a real-life problem in their own community. The activity can be completed if students have conducted the online activities or otherwise learned similar content. Guide students in brainstorming solutions for how to fix dangers to watershed ecosystems and drinking water using the interactive lessons as inspiration. Have them record their thinking on the [Design This! Student Handout](#).

Young Activists Activity - *Requires: Printed handouts*

Invite students to read the [Tributary Tribune news article](#) (the PDF prints on 11x17 paper- to print on an 8x11 set printer to “fit to printable area”), and then have them complete the [Young Journalists Student Handout](#). The third question on the worksheet asks students to build on the journalism skills that they fostered in the Water Reporters activity, and create questions for a hypothetical interview with a young water activist.

Additional related UNC-TV Sci NC segments for students to watch:

These stories are targeted towards 6-12 grade students, so teachers should review them first to determine how appropriate they may be for their students.

[We all live downstream](#)

[Catch the rain](#)

Watershed Wisdom Lesson Overview

As is the case with many states, North Carolina has suffered its share of flooding, and its citizens have coped with fairly significant periods of drought and toxic spills. With environmental issues such as extreme weather events on the rise, everyone—and especially students—should understand that water is a natural resource that needs to be valued and protected.

Designed for alignment to North Carolina 4th- and 5th-grade science standards but appropriate for all students regardless of age and location, Watershed Wisdom is a blended lesson that combines interactive components with hands-on projects.

This resource was developed in partnership with the following organizations:

UNC-TV Science

North Carolina Sea Grant

North Carolina Watershed Stewardship Network's K-12 Work Team

Abermarle Pamlico National Estuary Partnership

City of Raleigh Stormwater

Town of Hillsborough Stormwater

NC Project Wet, Department of Environmental Quality

North Carolina Water Resources Research Institute