



Arizona Water Festival Unit – Materials Needed

Pre-Festival Lessons:

Anchor Phenomena – Intro

Materials Needed: *If a heat source is not available or allowed, use the Arizona Water Festival Anchor Phenomena video. <https://youtu.be/M3FNxIRroR8> and pause the video to let the students answer the questions.*

- [Water Cycle Diagram handout](#)
- Electric burner or hot plate
- 2 metal pots, each $\frac{3}{4}$ full of water
- Metal pan
- Potholder
- Ice
- Water

Lesson 1.1 - A Drop in the Bucket

Materials Needed:

- 1 Liter of water per group (or for class, if doing class demo)
- Small measuring cup of at least 30 mL per group
- Globe or world map
- 100 mL measuring cup or container per group
- 10 mL measuring cup or container per group
- Eye dropper (optional) per group
- Metal Bucket or small bowl per group
- [AWF Unit Slides Intro and Lesson 1](#)

Lesson 1.2 - Molecules in Motion

Materials Needed:

- 2 one-quart size glass jars
- Clear cups approximately 5 inches in height (enough for 2 for each table group)
- Rubber bands
- Popsicle sticks or wooden skewers (enough for 2 for each table group)
- Small clear vials (enough for 2 for each table group)
- Blue Food color
- Ice
- Large container of boiling water (an electric kettle or hotplate can be used)
- Large container of room temperature water
- Large container of ice-cold water
- Sticky Notes
- [Lesson 1 Molecules in Motion Simulation Worksheet](#)
- [AWF Unit Slides Intro and Lesson 1](#)



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Lesson 2 - Water Movement Between Earth Systems

Materials Needed:

- Clear plastic ziplock bag for each student.
- [Thirsty Plants Data worksheet](#)
- Transpiration Diagram (found power point slides provided below)
- Clear plastic cup for each student (could be something out of recycle bin)
- [AWF Unit Slides Lesson 2](#)

Lesson 3.1 - Watersheds Work

Materials Needed:

- Spray bottles
- 2 pieces of 8-1/2 by 11 white paper per student (scrap paper can be used if blank on one side)
- Water soluble markers (green, blue, brown, red, purple)
- Scotch Tape
- [AWF Unit Slides Lesson 3](#)

Lesson 3.2 - Understanding Urban Watersheds

Materials Needed:

Each water festival group will need:

- [Runoff & Heat Scavenger Hunt Worksheet](#) for each student (handout)
- Clipboards (one for each group if possible)
- Temperature gun (provided by APW if attended workshop)
- Chalk (for outside) or 10-15 chairs (for inside option)
- Sticky notes or other materials to represent pollutants found in urban runoff
- Can or bottle labeled "chemicals" or "oil" (optional)
- [AWF Unit Slides Lesson 3](#)

Post-Festival Lessons:

Lesson 4 - It All Adds Up

Materials Needed:

- Piece of flip chart paper or poster board prepared as instructed for each group
- Colored markers, pencils, or crayons
- Items representing pollution (see suggested pollution items table below)
- Copy Page- [Best Management Practices](#)
- [Background Reading](#)
- [AWF Unit Slides Lesson 4](#)



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Lesson 5 – Groundwater Connection

Materials Needed:

- [Arizona Groundwater Videos](#)
- [Groundwater Diagram Worksheet](#)
- [AWF Unit Slides Lesson 5](#)

Lesson 6.1 – Water Web

Materials Needed:

- [Direct and Indirect Water Use worksheet](#)
- [Arizona Water Resources and Users](#)
- Copy of [Water Users Cards](#) (enough for each group)
- 2 – one-gallon empty milk jugs filled with water – label one “groundwater” and one “surface water” tied together with yarn.
- 1 ball of yarn
- Enough Dixie cups for one per student
- [AWF Unit Slides Lesson 6](#)

Lesson 6.2 – My Water Footprint

Materials Needed:

- 2 sheets of 8^{1/2} x 11 paper per student
- Pencils and optional art supplies (markers, colored pencils, crayons)
- Scissors
- Cut out Copy page – [Water Use Roles](#) (enough for one per student)
- [Teacher Lesson Resources](#) pages
- [Student Water Sustainability Worksheets](#)
- [Teacher Water Sustainability WS Answers](#)
- [AWF Unit Slides Lesson 6](#)