## Colorado Springs Utilities It's how we're all connected

## **Classroom Kit**

## **Water Education Kit**

This kit includes the following activities and associated materials.

- **Get to know your H2O** Students learn about water on Earth and our local water source
  - o Globe
  - 1 Gallon jug or container
  - Teaspoon
  - 100 macaroni pasta. Beans or small items (per student)
  - Student worksheet
  - Green, blue and red markers (optional)
- Water Rights in Colorado Trading Game Students buy and sell water rights using poker chips and play money
  - Poker chips
  - Play money
  - Index cards
  - Jellybeans
- Downstream Users Game We all Share the Water Students pass water "downstream" from one cup to another to understand that we all use the same water and that we need to use it wisely so there will be enough for others who also depend on this resource
  - Solid colored plastic cups enough for 1 per student (9-12 oz are best)
  - Water (about 1 cup)
  - Some dirt
- Water Properties Experiments Supplies and instructions to set up five different water property experiments on one table for students to conduct on their own.
  - Experiment #1: Two, ½ full jars of water, one with screen over the lid, blank index cards, and a pan to catch the water.
  - Experiment #2: 1 pan or plate, a few pennies to place in the bottom f the pan, two pipettes, and a small glass of water.
  - Experiment #3: Some push pins, some paper clips bent to work as a tool and a bowl of water.
  - Experiment #4: Small strips of paper towel, a cup, 3 pipette droppers, and a plate to hold dyed blue water (use dye tablet or food coloring)
  - Experiment #5: a tall glass of water, 2 pipette droppers and a small container of blue water on a plate (\*use dye tablet).





- Around the Water Cycle Readers Theater Students have parts as water drops
  - Copies of the Reader's Theater script
- Water Cycle Inside a Balloon Show evaporation, condensation, and precipitation inside a clear balloon
  - Water cycle poster or picture
  - 1 clear latex balloon
  - o Tapered candle in a holder
  - Lighter
  - Water
  - Funnel
  - Fireproof surface
  - Safety goggles
- Cloud in a Bottle Reinforce evaporation and condensation by creating a cloud inside a bottle
  - One-liter clear plastic bottle with cap
  - Isopropyl (rubbing) alcohol
  - Foot pump with rubber stopper attachment
  - Safety goggles
  - 2 water molecule models or pictures.
  - Activity guide

NOTE: Entire kit can be purchased on-line at <a href="http://www.stevespanglerscience.com/">http://www.stevespanglerscience.com/</a> for approximately \$30.

- **Engineering a Water System** Demonstrate the components of a raw water system and how it works.
  - Labeled photos of the major components of a raw water system
  - Descriptions of those components
  - Ways for students to arrange and label photographed components to lay out their own system

Water Pipeline Game pieces:

- 40 white ping pong balls
- 40 blue ping pong balls
- o 14 pieces of 2" PVC pipe cut in half
- 6 mixing bowls
- 2 buckets



- **Incredible Journey Water Cycle Dice Game** Pretend to be a water drop going through the water cycle and residing in different mediums.
  - Water cycle poster
  - 9 2" x 2" styrofoam or wooden block cubes and cover with templates attached
  - 9 station ids (clouds, lake, animal, soil, ground water, river, ocean, plant, glacier) attached.
  - o Chenille stems, 1 per student
  - Plastic beads in yellow and nine other colors
  - Student worksheet
  - Pencils
- Water Availability Skit Students demonstrate the amount of fresh, available water on Earth.
- Water Trivia Flash Cards Test your student's knowledge about various worldwide and local water facts