THAD Therapeutic Horticulture Activity Database

Activity: Nature Goal: Sensory Populations: All

TH Activity Plan – Water Cycle Wristbands

Text by Lesley Fleming, HTR

Photos by L. Fleming. Graphics by Southwest Florida Water Management District



Materials

Plastic beads: yellow, clear, green, white, blue & brown

Jewelry hemp twine

Scissors, small containers

Hydrologic cycle pamphlet

ACTIVITY DESCRIPTION: Participants will make a wristband representing the water cycle as a hands-on method of learning about this important part of the environment.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Expand knowledge about the water cycle appropriate for age & cognitive capabilities; practiced extending attention & focus during a seated activity
Physical: Practice fine motor skills threading beads onto twine
Psychological/Emotional: Practice emotion regulation & patience
Sensory: Practice modulating impulsivity

Social: Work in pairs assisting each other; work as mentor-mentee assisting partner; deliver session in a peer-led session

STEP-BY-STEP PROCESS:

- 1. **Pre-Session Preparation:** Gather materials & have copies of hydrological cycle pamphlet made. Pre-pack beads, twine/string & pamphlet materials into individual kits.
- 2. Facilitator begins session by defining and explaining the hydrological cycle, its importance to the environment, its pervasive influence on nature, crops, & humans.
- 3. Once the kits are distributed, participants place items into a small container. Tie a knot on one end of the twine.
- 4. Threading the colored beads onto the twine, the facilitator leads group through each color bead, discussing the corresponding step of the water cycle (ie. yellow represents solar energy). If the activity is set up as self-directed, participants work independently.
- 5. At the other end of twine, make a diagonal cut so that it can be threaded through the last bead, forming a circle securing all beads. Tie a knot to form wristband.
- 6. This makes a self-adjusting loop wristband. Representing the various stages within the water cycle, the closed loop wristband also represents the water cycle as a closed cycle.

APPLICATIONS FOR POPULATIONS: This activity can be both an educationally focused session and one with therapeutic goals. Delivered in classrooms, school gardens, and summer camps for young people, it has also been used with incarcerated individuals, seniors and wellness groups. Several themes can be used including a nature-informed environmental focus, water conservation, fun plant jewelry session, community garden event's hands-on activity for all ages, and horticulture training on the importance of water for plant growth and production.

The activity can be presented in various ways from typical teaching methodology, self-directed session where instructions are distributed and facilitator assists where needed, or as a peer-led or mentorship session where older students/people are partnered with younger/people who need some support intellectually, physically or both. For populations who have cognitive impairment, learning disabilities or intellectual disabilities, explaining the cycle as rain falling from clouds, soaking the ground, and evaporating back into the air, can be a simple and understandable concept. A therapeutic goal using the threading of the beads on the twine and following facilitator's direction can work towards practice modulating impulsivity and staying seated attending to making the wristband. For people with attention, impulsivity and self-regulation challenges the goal can be modified to a specific amount of time for the conscious act of attending to the task at hand, which may not be for the entire duration of the wristband making.

SAFETY CONSIDERATIONS: Activity may not be appropriate for populations that may be tempted to put items into mouths; the plastic beads are small and could be a potential choking hazard.

NOTES OR OTHER CONSIDERATIONS: Most regions have water management organizations that have free information and resources on their websites. These include: bookmarks; bird, wildflower, hydrologic cycle, and aquifer posters; coloring/activity sheets and activity packets; *Water Matters* teacher's guides (multi-grades); educational materials on many related topics like wetlands, extreme weather, groundwater, watershed, habitats; and career information. *The Science Penguin* website has activities for creating a <u>water cycle flipbook</u> or cube simulation, creating weather and water stations, and downloadable resources like <u>4th grade water cycle</u> slides and notes worksheet, water cycle vocabulary task card activities, and printables for upper elementary students. *The Water Project* (website) provides lessons and downloads on evaporation, precipitation, and water purification.

To extend the session or activity consider THAD activity Radish Seed Necklaces which uses a closed water cycle system and condensation to hasten seed germination.

REFERENCES/ RESOURCES:

Southwest Florida Water Management District. (2023). District resources.

https://www.swfwmd.state.fl.us/resources

The Science Penguin. (n.d.). 7 ideas for the water cycle. https://thesciencepenguin.com/2015/02/7-ideas-water-cycle.html



Edits were made for THAD purposes in 2023.

TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2023