

Students explore COSI ecosystems

Written by Stephanie Groves
Thursday, February 28, 2013 2:06 PM -



sgroves@delphosherald.com

FORT JENNINGS — Fort Jennings students in grades K-6 explored the science of ecosystems during COSI On Wheels Outreach Program Exploring Ecology on Wednesday.

During the morning assembly, students were energized about the program through a dynamic 45-minute presentation given by Outreach Educator Joe Butler, who introduced the science of ecosystems, animal adaptations and their life cycles and how parts of a biological community are connected within their environment.

The hands-on session in the afternoon lasted 30-45 minutes for each grade. Students had the opportunity to learn how animals use camouflage to survive in their habitat, explore life cycles of different animals, study the impact of changes to plants and animals and discover how different animals see the world. In the hands-on sessions, students informally interact with the activities, spending as little or as much time as they liked at each station.

Kindergarten students seemed to really enjoy the “Pyramid Power” station where they built fungi and bacteria food chains with wood blocks. With the assistance of volunteer Sharon Gasser, the students used rectangular- and triangular-shaped blocks, designed with fungi, animal and land element icons on them, to build a pyramid (ecosystem). The ecosystem is interdependent on all the elements for survival to maintain equilibrium.

After building the ecosystem, Gasser instructed the students to remove one or more of the

Students explore COSI ecosystems

Written by Stephanie Groves

Thursday, February 28, 2013 2:06 PM -

blocks, which created a physical imbalance simulating the cause and effect of an event altering the balance in an ecosystem. This activity lends itself to a better understanding of the relationships between predator and prey organisms, as well as the relationships to plants and soil.

Another favorite, especially with the older students, “Who’d a Trunk It” station, presented the students with the opportunity to observe and study sections of tree rings and identify natural and environmental changes impacting a tree’s growth, color and denseness of its wood.

Marge VonSossan explained the study of Dendrochronology, or tree-ring dating, which is the scientific method of dating based on the analysis of patterns of tree rings, also known as growth rings. The concentric layers of wood develop during an annual or other regular period growth. Varying widths between the rings indicate differing geographic variations of the role of light, temperature, and water as climatic changes. VonSossan quizzed the students about the Ohio Buckeye Tree (Latin name is *Aesculus glabra*), which was designated by legislature in 1953 as Ohio’s official tree. The students also discussed the darker coloration and hardness of the wood from the Black Walnut tree (*Juglans nigra*).

Other stations included:

- Beaks as Tools: Students investigate the different ways that birds use their beaks as tools to acquire food: an adaptation developed in relationship to specific plants.
- C.A.M.O: Students explore how adaptations, such as camouflage, help animals blend in with their physical surroundings and survive in their habitat.
- Ecological Monitoring: Students explore the same habitat in four different seasons to discover how living things adapt to seasonal changes.
- Just Fur Science: Students investigate real animal furs and learn how their fur helps them survive in their environment.
- Mighty Morphin’ Power Changers: Students explore the life cycles of animals that undergo complete body changes and how this cycle fits into the larger ecosystem
- The Root of it All: Using a large plant model, students test their knowledge about the different parts of a plant and the role of photosynthesis.
- Eye See You: Students experience how different animals and insects see and how those various methods of vision aid in the animals’ survival.
- ProSEED to Grow: Students test various seeds and explore how the strategy of dispersal relates to the ecosystem in which the plant is situated.

For more information, please visit cosi.org/educators/outreach .