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Appalachian STEM Enrichment Academy Online and In Person K-12 Curriculum

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The Appalachian STEM Enrichment Academy provides virtual hands-on STEM learning opportunities and career track development for K-12 students throughout Appalachia Ohio and beyond. The Academy platform provides hands-on activities and online lessons and resources and is available 24/7/365. It can be utilized by teachers, after school groups, summer camps, families, and students to access unique resources to encourage the next generation of lifelong STEM learners who will be equipped with the knowledge needed to tackle emerging challenges in our world. Lessons follow a "5E instructional model" which facilitates topical connections through engagement, exploration, explanation, elaboration, and evaluation. The online platform delivers these programs remotely, while fostering an appreciation for reclamation science, among other topics. The Academy provides career tracks in specific substantive areas including water, energy, environmental remediation, technology, and sustainability. Learning modalities include a blending of seminars, interactive online sessions, hands-on learning activities-many of which can be carried out with items found at home, career videos, and student sharing via their online postings, videos, and social media interaction. In-person classroom presentations can be provided as well upon request and dependent on available resources. Funding for the ASEA is provided by the Voinovich School of Leadership and Public Service, the PORTSfuture Program funded by the US Department of Energy Office of Environmental Management, the American Electric Power Foundation of the Columbus Foundation, and Constellation. The Academy is free and open to the public for use from any internet-abled device at home or on the go.

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