

Community, nature and 3-D printers help spark early interest in STEM

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Getting young students interested in science and math may soon be much easier for teachers – as easy as point, click and print.

[The Shape of Science LLC](#)

[a Purdue University-affiliated startup, provides an online portal for](#)

[high school teachers](#) looking for interactive lesson plans related to science, technology, engineering and math. Teachers are able to log in to the site, search for lesson plans and then use a 3-D printer to prepare them for students.

"Our goals are to help teachers save time, hit [education standards](#) and engage students," said Jeffrey Holland, a professor of entomology in Purdue's College of Agriculture, who founded the startup. "We avoid the typical, lengthy and costly process of teachers selecting lessons from a catalog and then having them shipped."

Holland is presenting his work this month during a conference for the Hoosier Association of Science Teachers Inc. in Indianapolis.

Holland, a fellow of the Indiana Academy of Science, said he wanted to be an entrepreneur for years and the idea for this startup came while he was working summers with teachers on a research grant involving [technology education](#) integrated with science.

"I saw there was a gap between available resources and what teachers really wanted to meet new educational standards and excite their students about these subjects," Holland said. "We offer lesson ideas and teaching aids that engage students with hands-on activities and remove the silos between what they are learning in science, math and technology classes."

The lessons are designed to help teachers meet the [Next Generation Science Standards](#), K–12 [science](#) content standards that have been adopted by school corporations across the United States.

Holland said some of the lessons he has created for the online portal include a growing trend in education – taking information learned from

processes in nature and applying them to STEM subjects. The lessons could include, for example, studying the interaction between insects and water to create a plan for better water conservation or developing new solutions to combat pollution in certain geographical areas.

The online portal is also designed to create a community for the users with discussion boards, lesson plan voting and wish lists.

Provided by Purdue University

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