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## *New Picture Book Guides*

### *Next Generation Science Standards Picture Book Partners*

To help you integrate science and literature, we have added new science picture book partners to our library that will help you to address specific NGSS. As with our 100+ currently available guides, each includes a link to a digital asset that will help you introduce the book, five comprehension questions that require constructed responses, an enrichment idea, an answer key, the NGSS and Common Core ELA standards that are being addressed, and the comprehension questions on printable pages.

Title	Gr.	Topic	NGSS Standard
Snow School	1 <sup>st</sup>	Animals	<i>1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</i>
All the Water in the World	2 <sup>nd</sup>	Water Cycle	<i>2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.</i>
The Most Magnificent Thing	3 <sup>rd</sup>	Simple Machines/ Inventions	<i>3-5-ETS1 Engineering Design</i>
Papa's Mechanical Fish	4 <sup>th</sup>	Simple Machines/ Inventions	<i>3-5-ETS1 Engineering Design</i>
The Boy Who Harnessed the Wind	5 <sup>th</sup>	Environmental	<i>3-5-ETS1 Engineering Design</i>
Energy Island	5 <sup>th</sup>	Environmental	<i>5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</i>

Choose *Reading* as your subject and click the *Guides* button. Then click *Load*. Click the top of the *Link* column to sort alphabetically.



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# Next Generation Science Standards Discussion and Simulation Examples

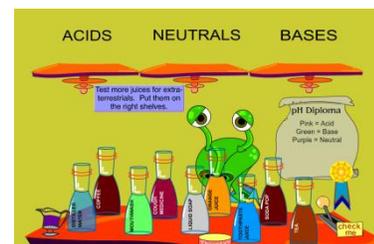
As of this month, 18 states have adopted the Next Generation Science Standards, and many more districts are unofficially using them to guide science curriculum improvements. One of the challenges with implementing the NGSS, and with teaching science in general, is that students need to “do” the science. This can be difficult if you have a lack of time and materials for experiments.

One of the ways digital content can help is by providing access to online, simulated experiments that still allow your students to “do” the science. While they aren’t as authentic as hands-on experiments, they still allow your students to hypothesize, investigate, draw conclusions, develop concepts, and use higher order thinking skills – things they wouldn’t be able to do without an online solution as an alternative.

Here are a few experiment examples found in our library:

## *Alien Juice Bar*

Discover which liquids are acids, bases, and neutrals as you experiment at your alien juice bar.



## *Peppered Moths*

Conduct experiments to learn how animal adaptations help certain peppered moths to survive through natural selection.



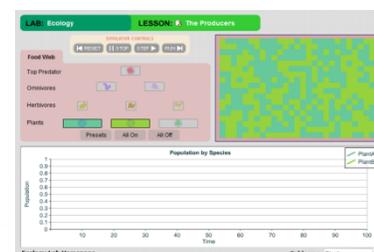
## *Buoyancy and Boats*

Explore the principals of buoyancy and density as you test how quickly items sink or float in the water.



## *Ecology Lab Simulator*

Run a simulation to explore how plant and animal populations are interconnected in a habitat.



# Digital Content to Encourage STEM Thinking

Encourage your students to develop their engineering skills with these construction problem solving challenges.

(Click an image to visit that activity.)

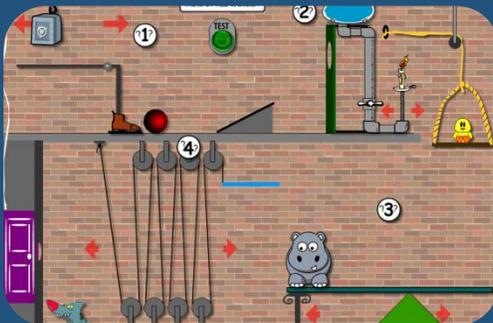
## Build A Coaster



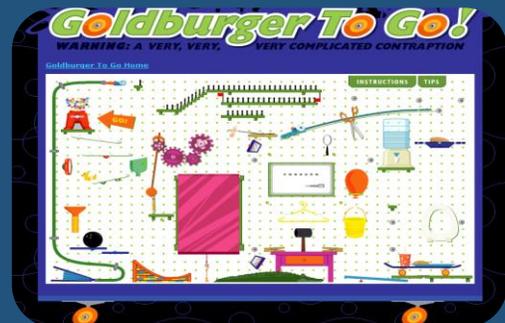
## Dish It Out



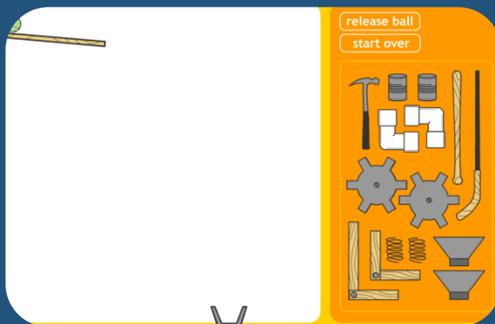
## Rube Goldberg Burglar Catcher



## Goldburger To Go



## Tinker Ball



## Mechanical Madness



For additional STEM content suggestions, check out *Digital Content for STEM* on pages 18 - 21 in our magazine:

<http://www.starmatica.com/coremagazine>

In Virginia: <http://www.starmatica.com/solmagazine>

In Iowa: <http://www.starmatica.com/iowamagazine>