

Putting the “A” in STEM

Presented by

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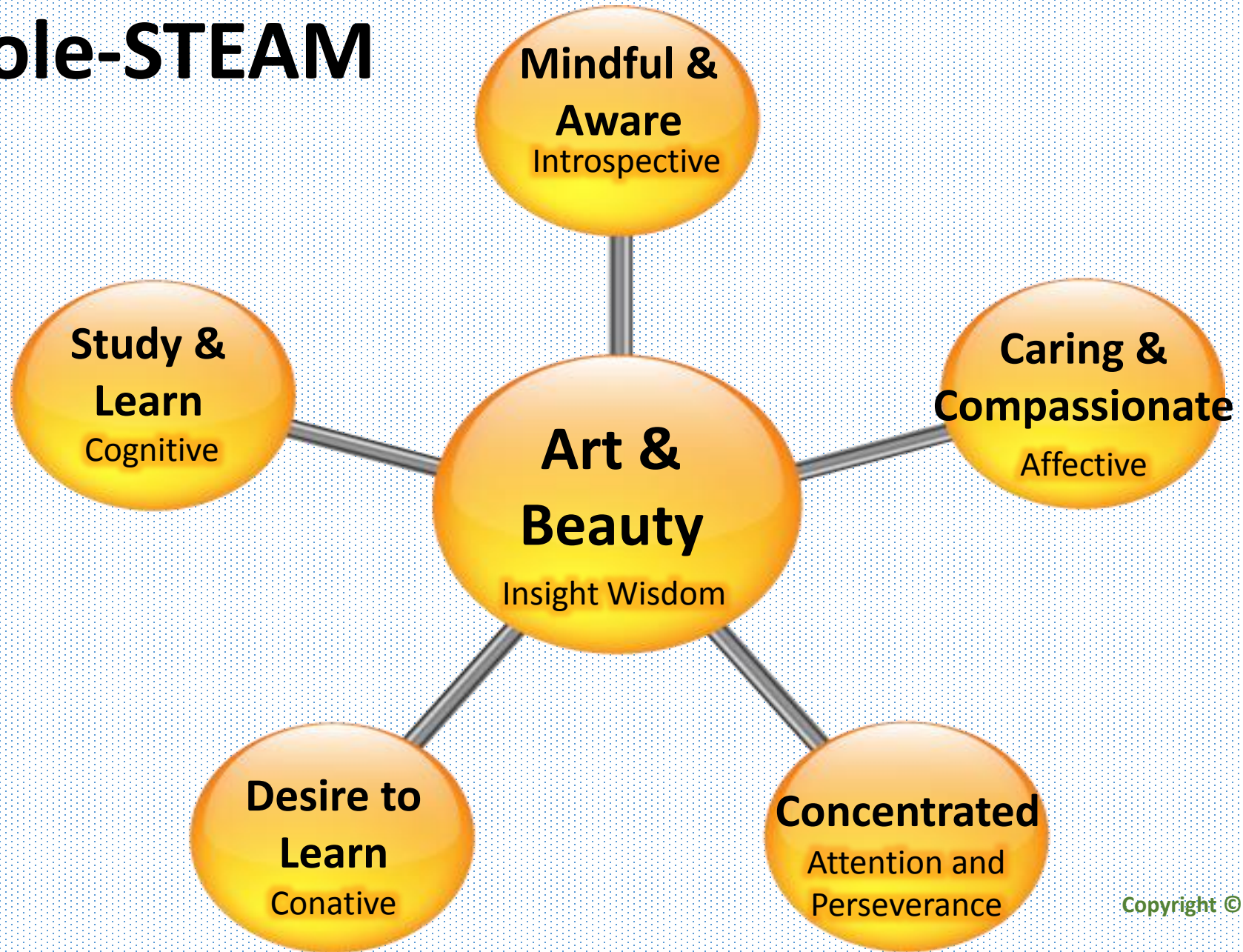
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The Whole-STEAM Learner



**Given this understanding then pose the question:
What is the best approach to prepare workforce for
the New GREEN (STEM/STEAM) Economy?**

**What if Schools are thought of as a
“Business”**

**What if Students are thought of as
“Workers”**

**Then Students would see themselves as
going to work at a business₁**

¹ ATE: STEM + Arts Webinar, April 20, 2012

What's in a box?

Perception
and
Perspective

The Object
and the
Observer



Reference: Retrieved from homeinabox.blogspot.com

Points
Lines
Area
Volume

All tools of the artist

Form
Structure
Patterns
Balance
Harmony

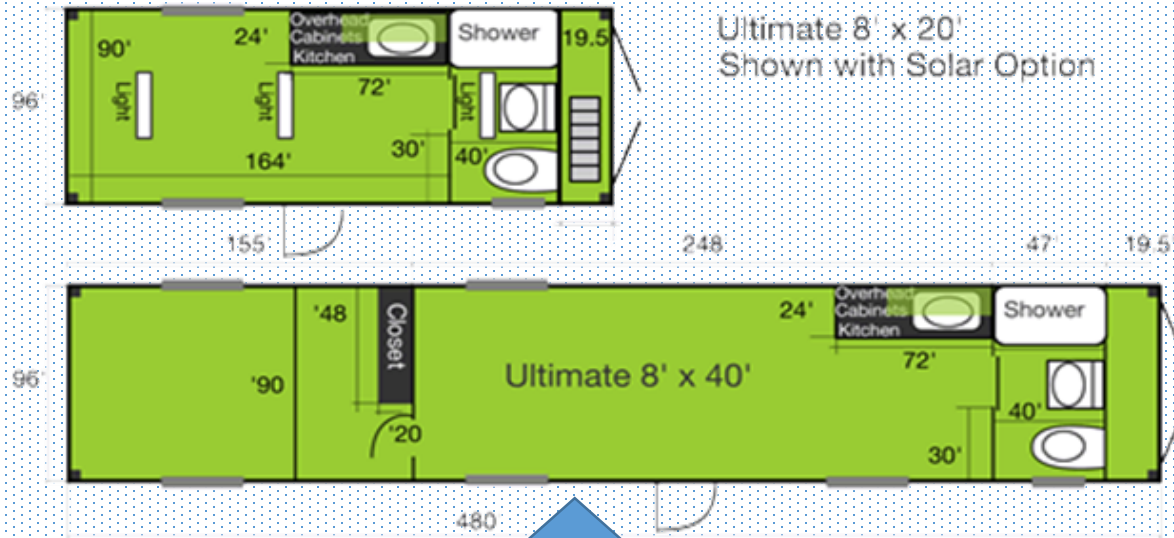


STEM Artist with Insight

References: Retrieved from www.prefabcontainerhomes.org

Create Sustainable Energy & Eco-Art Learning Labs

Learn – Think - Create



Global Portable Buildings

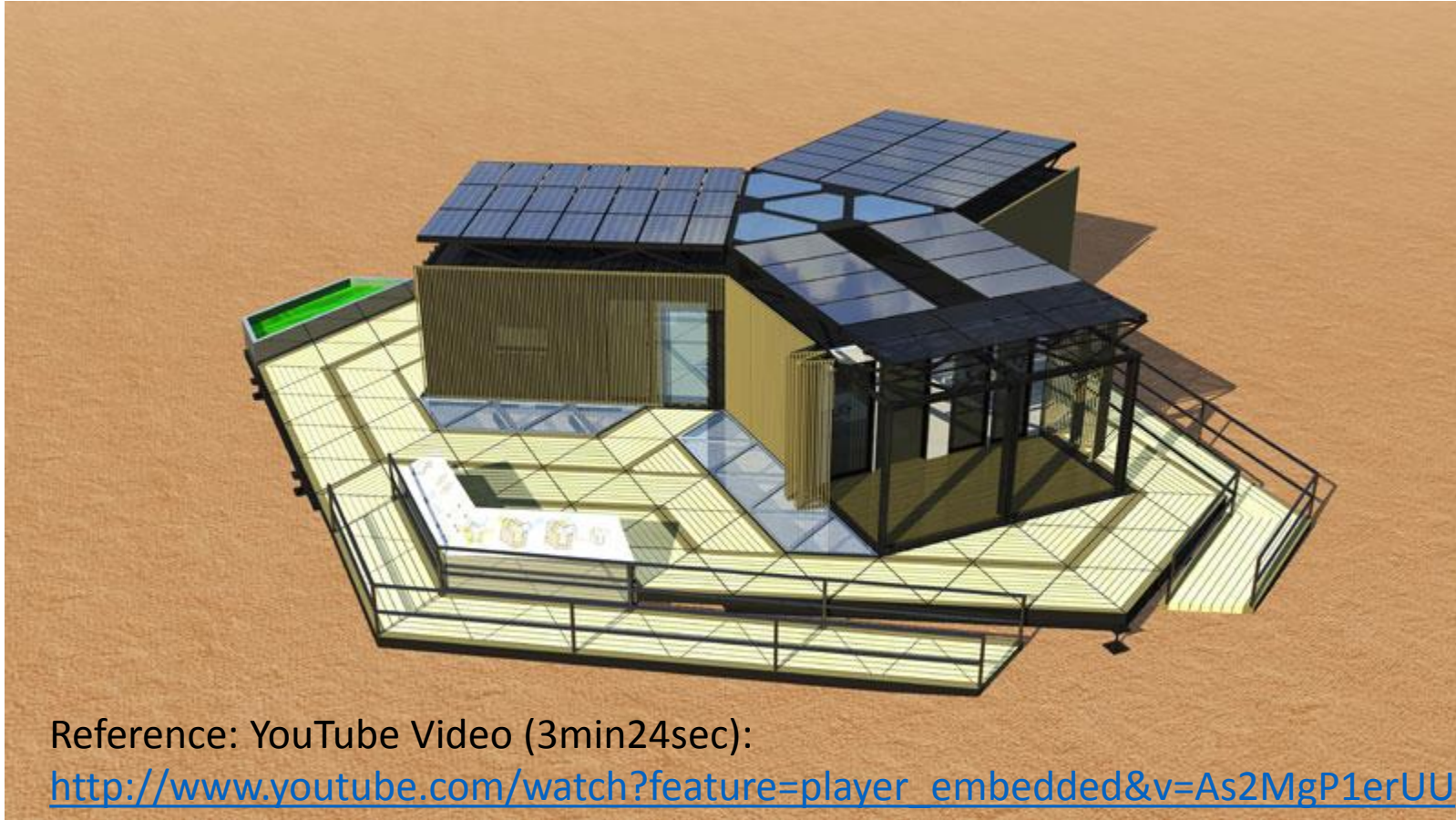
<http://www.globalportablebuildings.com/>

The All Terrain Cabin (ATC) By BARK. Small scaled prefab shipping container green home architecture design:

<http://www.residentialshippingcontainerprimer.com/The%20All%20Terrain%20Cabin>



Team China Tongji University Entry U.S. Department of Energy's 2011 Solar Decathlon



What else do you see?



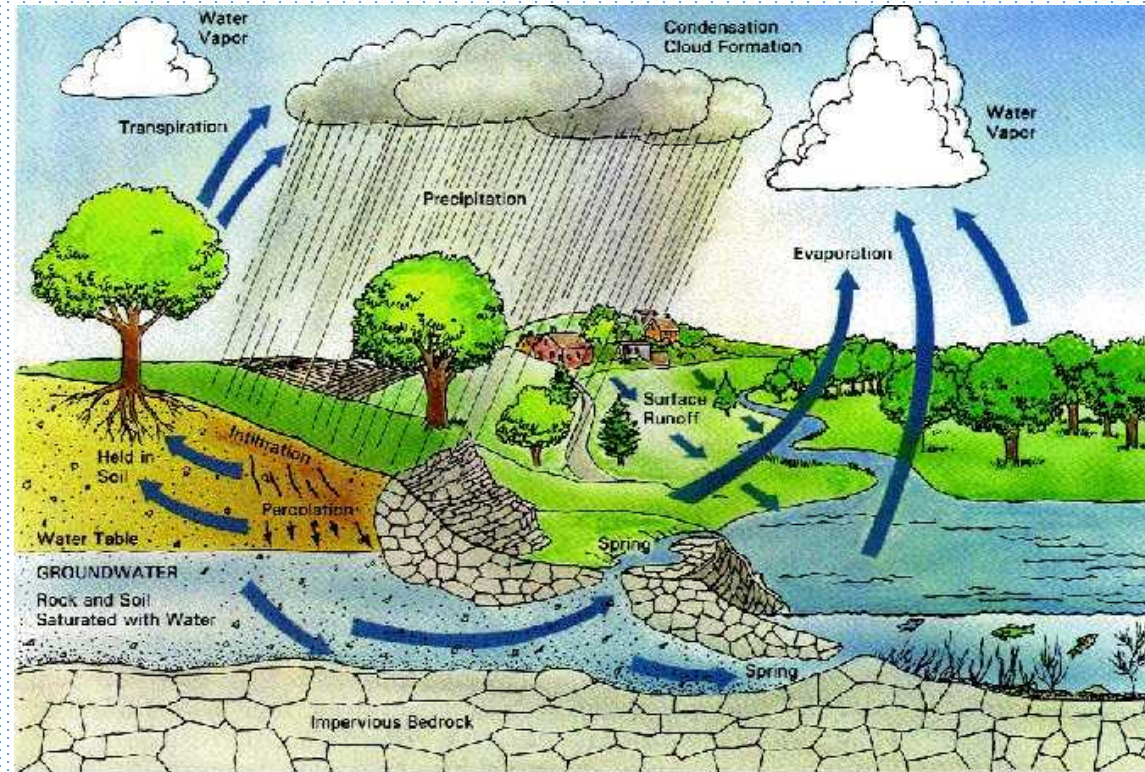
STEM + Art = STEAM



STEAM Examples: Water Catchment and Harvesting



Rainwater capture and storage system at the [Monterrey Institute of Technology and Higher Education, Mexico City](https://www.monterrey.edu.mx/).



Reference: Retrieved from www.yocli.co.in

Students “make things” of beauty and art, and by doing so, gain knowledge and skills in STEM/STEAM learning

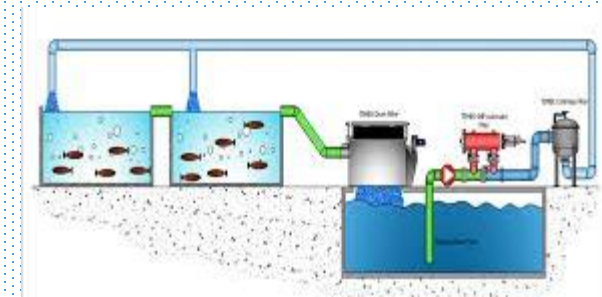


References: www.dreamstime.com; www.kahrl.com

Learn Sustainable Aquaculture and Food Sciences for Small Business Enterprises



A screenshot of the NOAA Habitat Conservation website. The header features the NOAA logo and the text "NOAA HABITAT CONSERVATION NATIONAL MARINE FISHERIES SERVICE". Below the header is a search bar and navigation links for "this site" and "all of NMFS". The main content area has a large banner image of two people fishing from a wooden dock on a lake, with the text "Conserving Habitat for Future Generations". Below the banner are three buttons: "Protection Visit Division >>", "Restoration Visit Division >>", and "Chesapeake Bay Visit Division >>". The left sidebar contains a menu with items like "Habitat Home", "About Us", "Our Work", "About Habitat", "Funding Opportunities", "Our Partners", "News & Multimedia", and "Publications & Resources". At the bottom, there are sections for "Highlights", "What's New?", and "Explore Habitat" which includes a map of the United States and links to "Recovery Act Restoration Atlas" and "Habitat Blueprint".



Create Functional Learning Sculptures for Creative Placemaking



References: retrieved from solar tree images at:
credacg.blogspot.com; orum.xcitefun.net;

Old Aeon Adages

Some may say, “Art like Beauty is in the eye of the beholder”

Then Behold,

Putting the “A” in STEM is the scholar’s challenge,
for without, we lack thinkers who cannot create.

Keep in mind that a 21st Century workforce must be built
with the hearts and minds of STEAM-Drivers.

Otherwise,

Without this investment, intellectual capital is squandered;
for those who lack in this understanding,
cannot differentiate between Truth & Content

Creating the STEAM Pipeline for a Sustainable Energy & Environmental Future



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