

Why Can't Every Building Be LIVING?

The SEED Collaborative
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James Jenkins

@ ELUG / 3.19.2013











Bertschi School

CULTIVATING CREATIVITY, CONFIDENCE AND COMPASSION.

Bertschi School educates children to become compassionate, confident and creative learners in a global community.

Founded 1975

- Pre-K through 5th
- 228 Students
- 30 Faculty

SCHOOL VALUES:

Our community values integrity, inclusiveness, respect, and a commitment to sustainable practices.







20 imperatives

Site

01 Limits to Growth

02 Urban Agriculture

03 Habitat Exchange

04 Car Free Living

Water

05 Net Zero Water

06 Ecological Water Flow

Energy

07 Net Zero Energy

Health

08 Civilized Environment

09 Healthy Air

10 Biophilia

Materials

11 Red List

12 Embodied Carbon Footprint

13 Responsible Industry

14 Appropriate Sourcing

15 Conservation + Reuse

Equity

16 Human Scale + Humane Places

17 Democracy + Social Justice

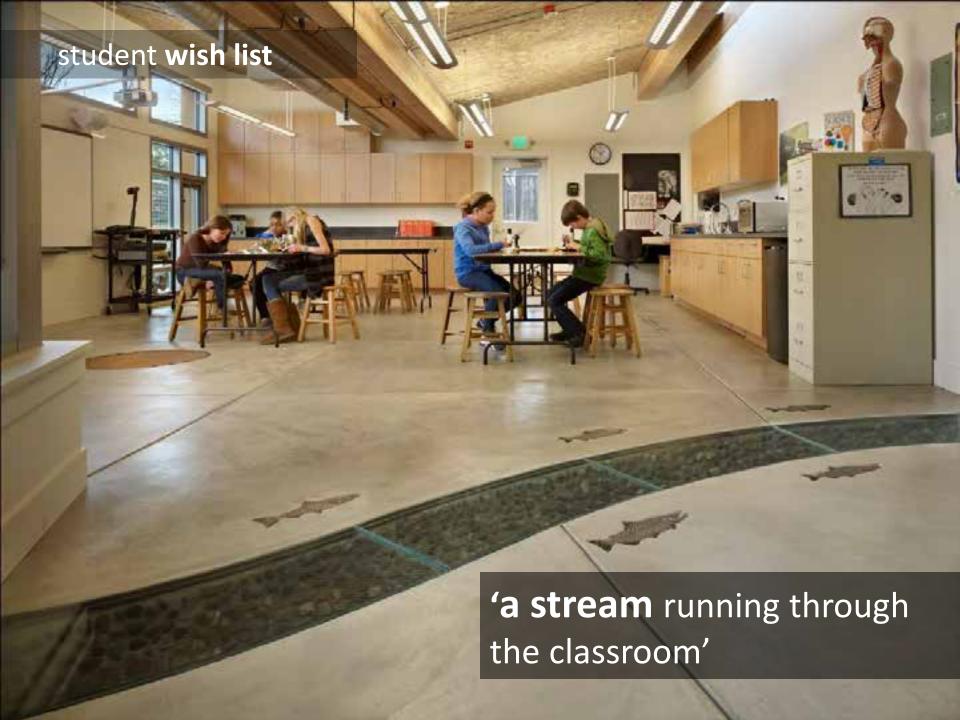
18 Rights to Nature

Beauty

19 Beauty + Spirit

20 Inspiration + Education















"Now I wonder why all buildings aren't

living..."

-Bertschi School 5th Grader

So do we...



The **SEED** Collaborative

what if... my classroom contained no toxic materials?

what if... the water I used in the sink came from the rain?

what if... I could grow my own snacks to eat at school?

what if... the toilet I used composted my waste?

what if... the energy my classroom needed came from the sun?

what if... my classroom was my teacher?

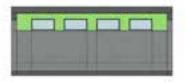


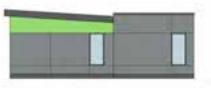
Why portables?



SEEDClassroom





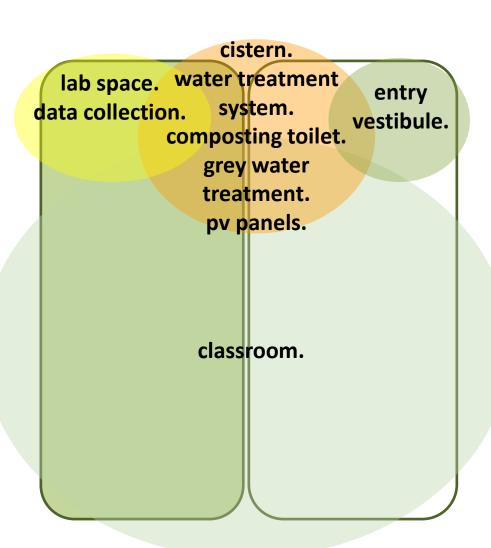


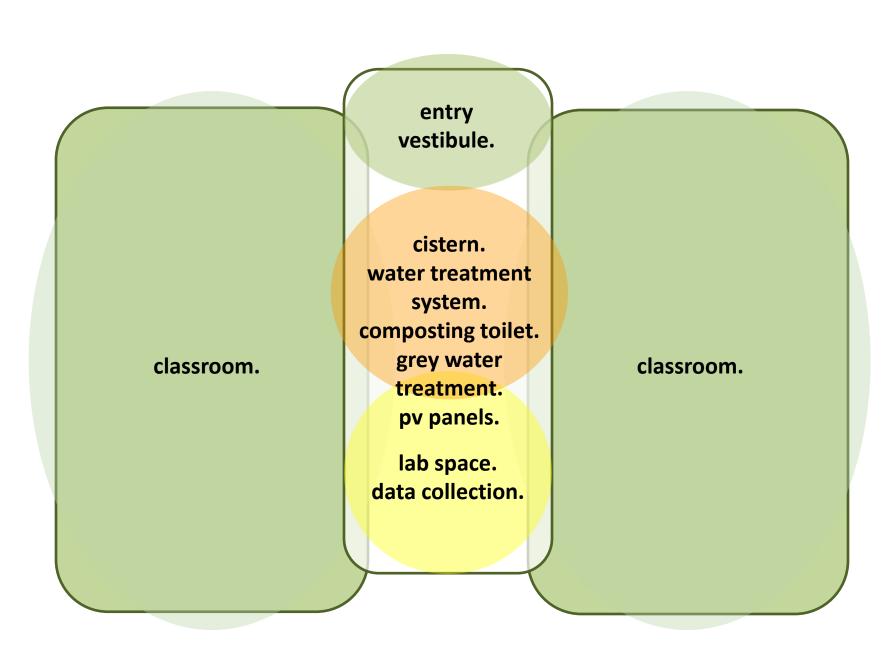




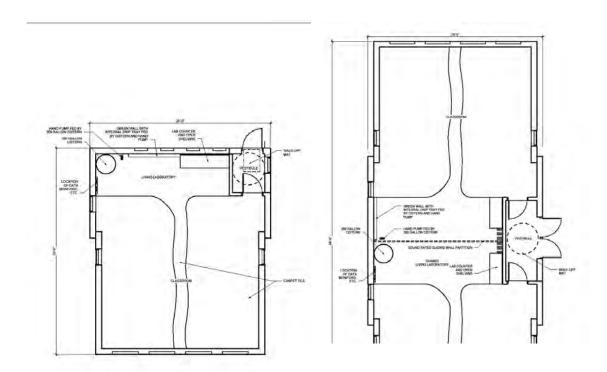
SEEDClassroom

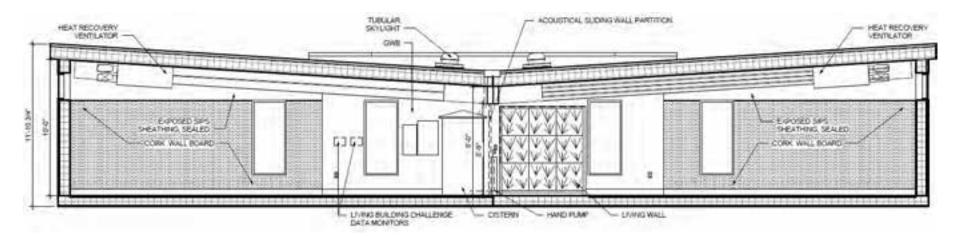
- Living Building
- Net-zero energy
- Net-zero water
- 100% non-toxic
- 100-year construction
- STE[A]M ready

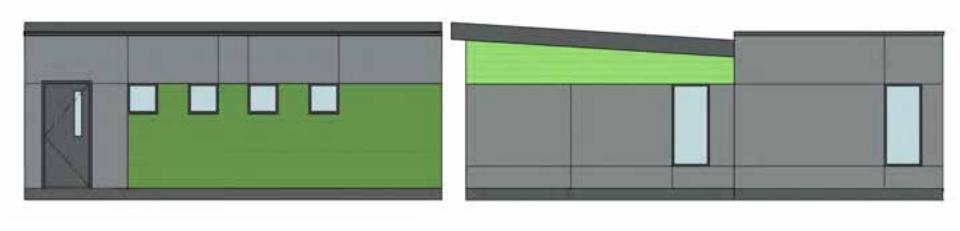


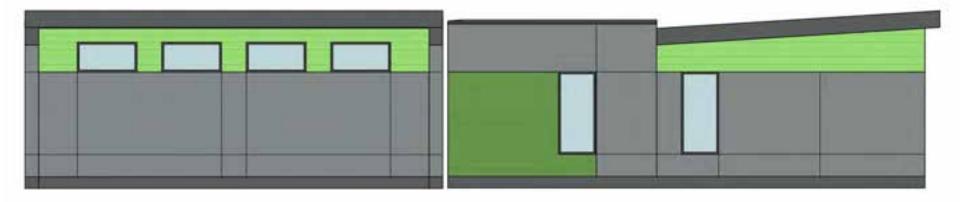












SEEDClassroom Design

Envelope:

SIPs construction

R-40 floor / R-48 wall / R-56 roof

HVAC:

Mini-split ductless heat pump

HRV

10 operable windows

Materials:

100% non-toxic materials Local sourcing

Net-Zero Energy:

6 kWh PV system LED lighting

Net-Zero Water:

Rainwater harvest Graywater recapture Composting toilet Living Wall

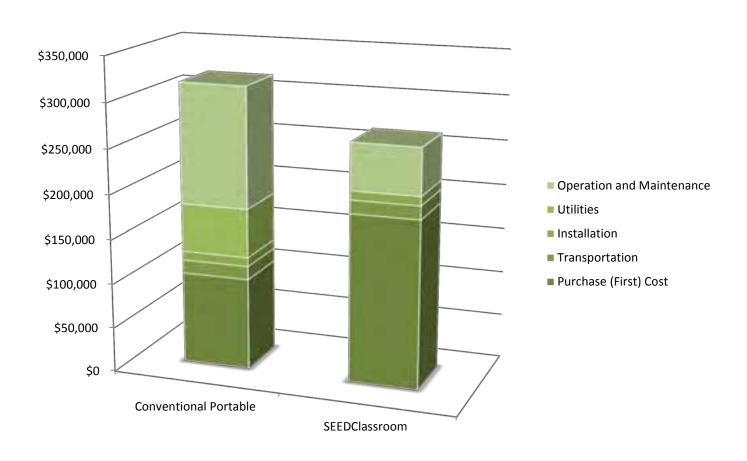


Corrective Action...

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	PT SKIRTING PACKAGE W/ VENT/CORNERS PAINTED	WITH NON-PAC VENT/CORNERS,
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	ALL JOSTS	1/4" STRUCTURALLY INSULATED PAN
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	FILAT 2/12	PANELS (SIPS) PITCH AS NOTED ON DRAWINGS
		PITCH AS NOTED ON DRAWINGS
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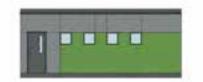
WALL COVER	SPS STANDARD	SEED STANDARD
Entire Building	1/2" VINYLWRAP TACKBOARD "CALCUTTA TAN"	1/4" CORK TACKBOARD AND GLASS MARKERBOARD
	OVER 5/8" TYPE-X SHEETROCK	OVER SIPS SHEATHING, GWB AT LOCATIONS INDICATED
		IN PROVIDED SECTIONS
CEILING	SPS STANDARD	SEED STANDARD
Entire Building	2'X4' T-BAR GRID & ARMSTRONG CORTEGA #769A	SIPS PANEL SHEATHING WITH TRIM BOARD
Ceiling Height	8'-0"	AS SHOWN IN PROVIDED SECTIONS AND ELEVATIONS
		FOR OPTIMAL DAYLIGHTING
FLOOR COVER	SPS STANDARD	SEED STANDARD
Entire Building	28oz NYLON CARPET	INTERFACE CARPET TILE MEETS LEED FOR SCHOOLS
Base	4" RUBBER BASE	6" FORMALDEHYDE FREE MEDITE TRIM
INTERIOR TRIM	SPS STANDARD	SEED STANDARD
Walls	VINYIWRAP CORNERS AND BATTS	CORK AND GWB CORNERS AND BATTS
Windows	VINYLWRAP OAK WOOD SURROUNDS AND CASING	FORMALDEHYDE FREE MEDITE SURROUNDS AND SILLS
Doors	VINYLWRAP OAK WOOD CASING AS REQUIRED	HOLLOW METAL DOORS AND FRAMES
Modline Joints	VINYLWRAP BATTS	FSC-CERTIFIED OSB BATTS, CORK BATTS AS REQUIRED
HVAC	SPS STANDARD	SEED STANDARD

Total Cost of Ownership





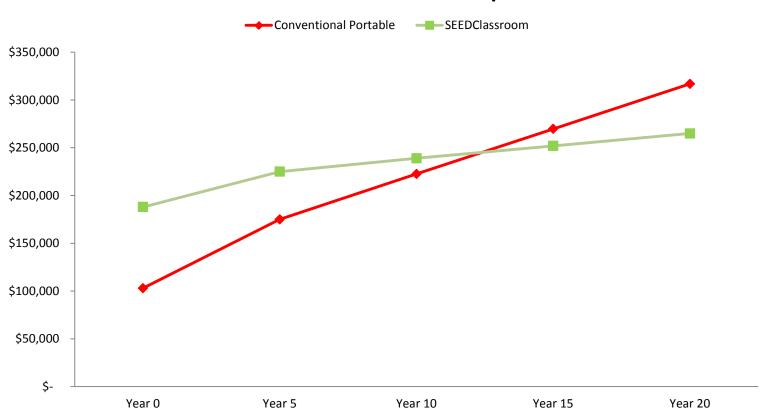


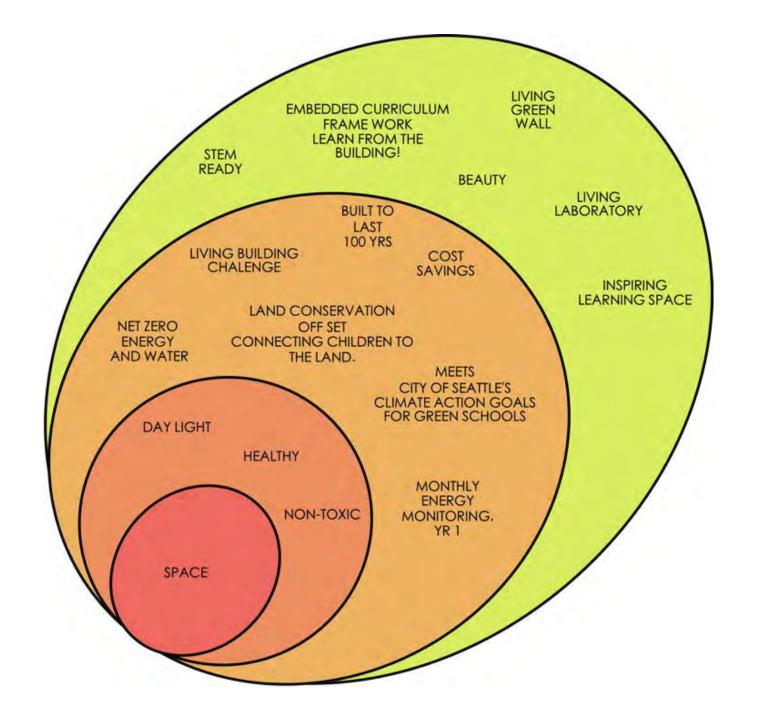


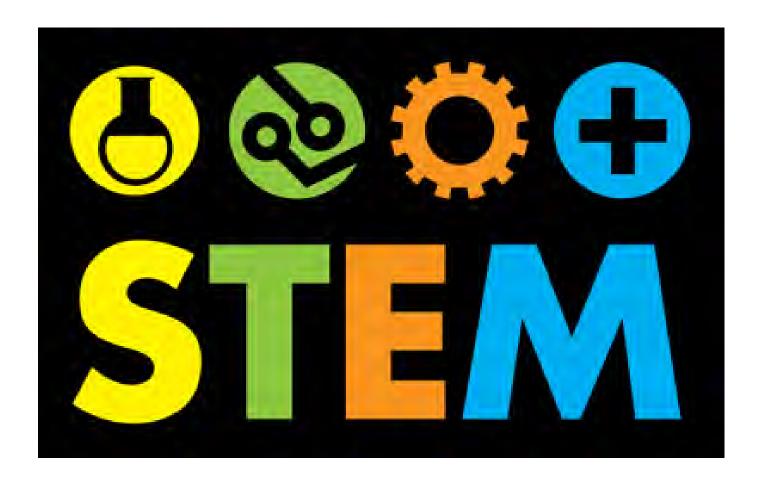


Lifecycle Analysis

Total Cost of Ownership

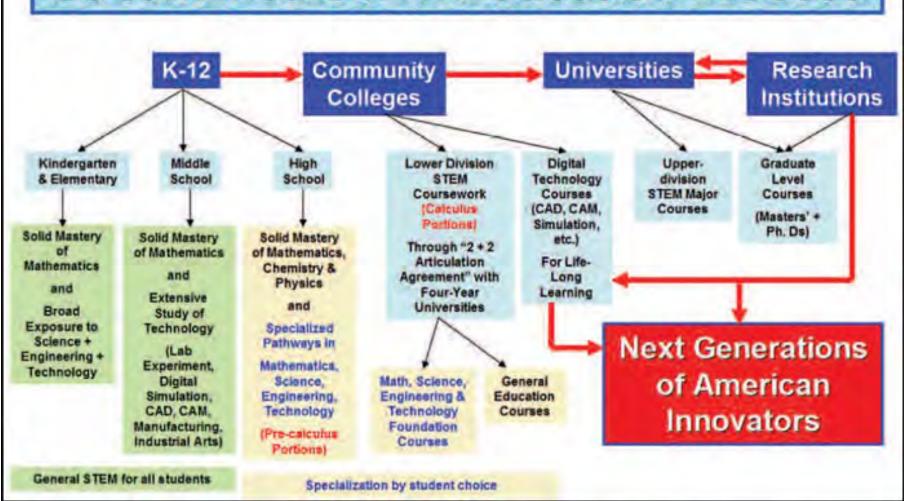


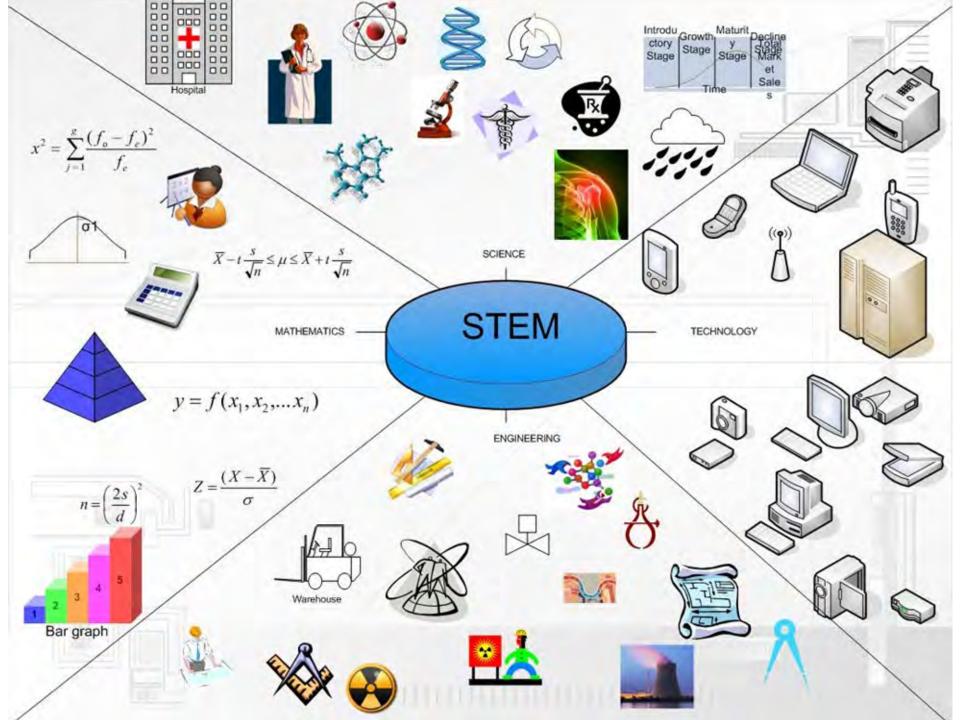






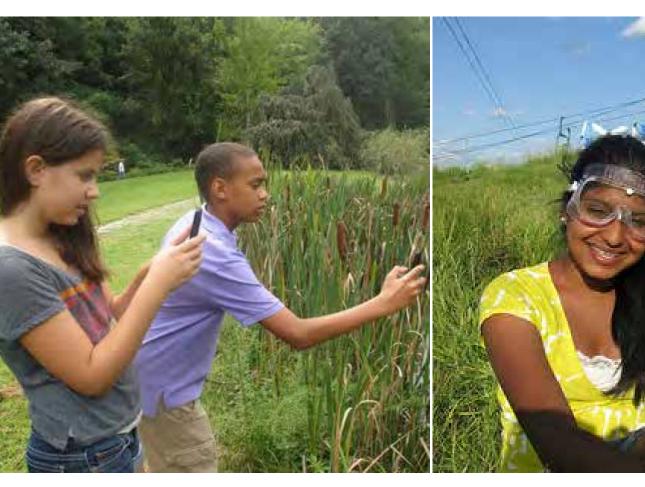
Streamlined STEM Education Process



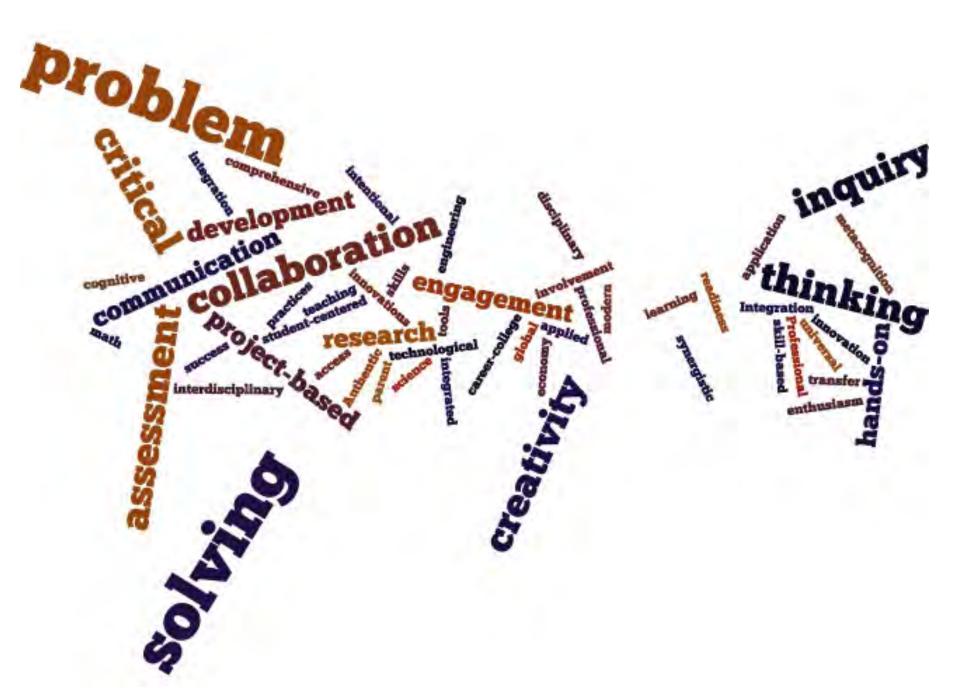






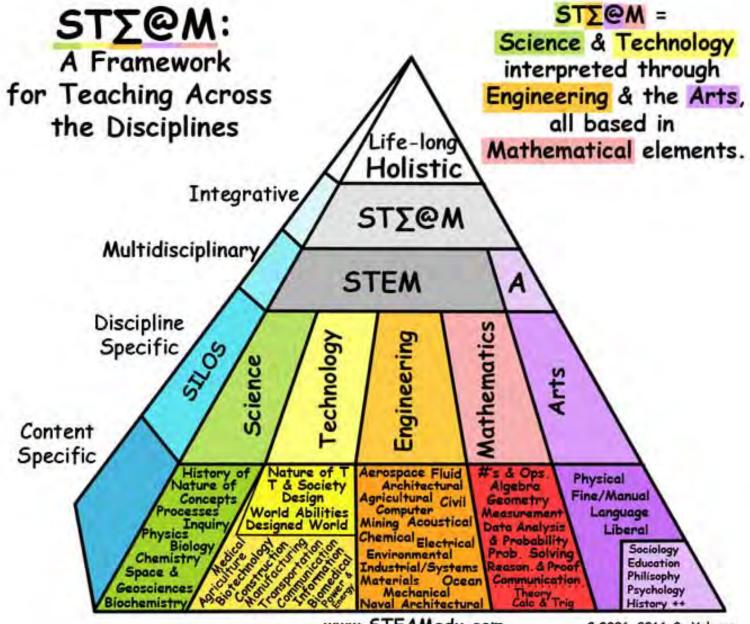








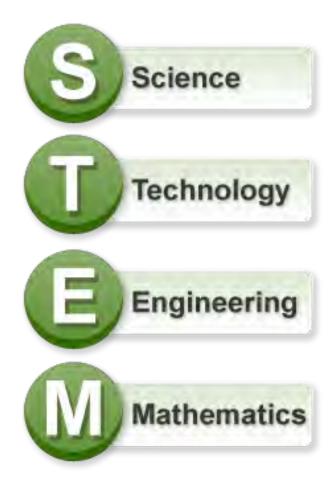
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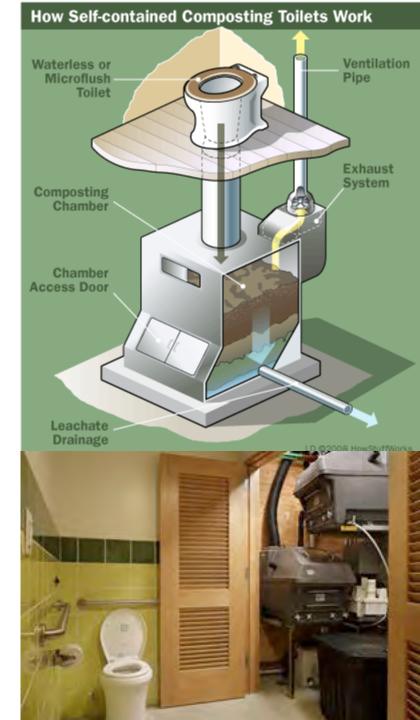


www.STEAMedu.com

C.2006-2011 G. Yakman











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Water Efficiency Surgy Officiary

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Next Steps...

- Prototype Living Future 2013
- Select pilots throughout Puget
 Sound Interested School Districts
- SEEDClassroom curriculum plugins – SEEDPacket
- Train the Teacher workshops
- Living Building Classroom consulting



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