

What is Essential? Developing Lessons at Sophisticated Levels

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A white van is shown in profile, facing left. The text "Vehicles of Change" is written in a black, italicized serif font across the side of the van. The van has a dark green front bumper and a black rear bumper. The wheels are black with white hubcaps. The background is plain white.

Vehicles of Change

Connected

Advocacy

Rigor

What is essential?

→ Developing **Essential Questions!**

Essential Questions

Questions that are most **relevant** aspects to the class
[connective]

Answering the questions is a journey through the curriculum; it is **a process** not a product *[rigor]*

Help students **connect** your class to other classes and /or disciplines *[connected]*

Should **cause students** to generate more *questions*
[advocacy]

Written as **open-ended** and **challenge** the students *[rigor]*

Spark **curiosity** and wonder *[rigor]*

Require **multidisciplinary approaches** to answer *[rigor]*

So What? Essential questions 1) accelerate instructional practices, 2) deepen the discipline knowledge and practices, and 3) advance thinking at sophisticated levels

Essential Questions

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Spark **curiosity** and wonder *[rigor]*

Require **multidisciplinary approaches** to answer *[rigor]*

Essential Questions

Who? - engage students in **making choices**

What? – involve students in **hypothesizing**

When? – require students to **predict**

Where? – have students **develop plans**

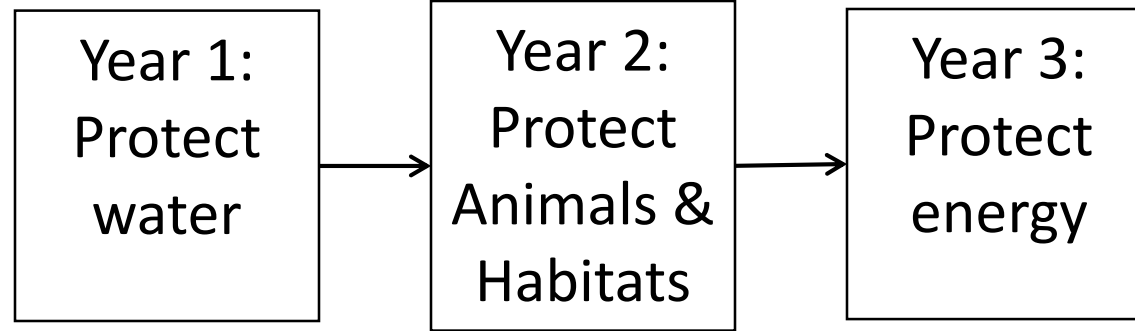
Why? – use the students' skill of **analysis**

Which? – provoke students to use evidence to **make decisions**
and **reason** through arguments

How? – compel students to gather information to **solve problems**

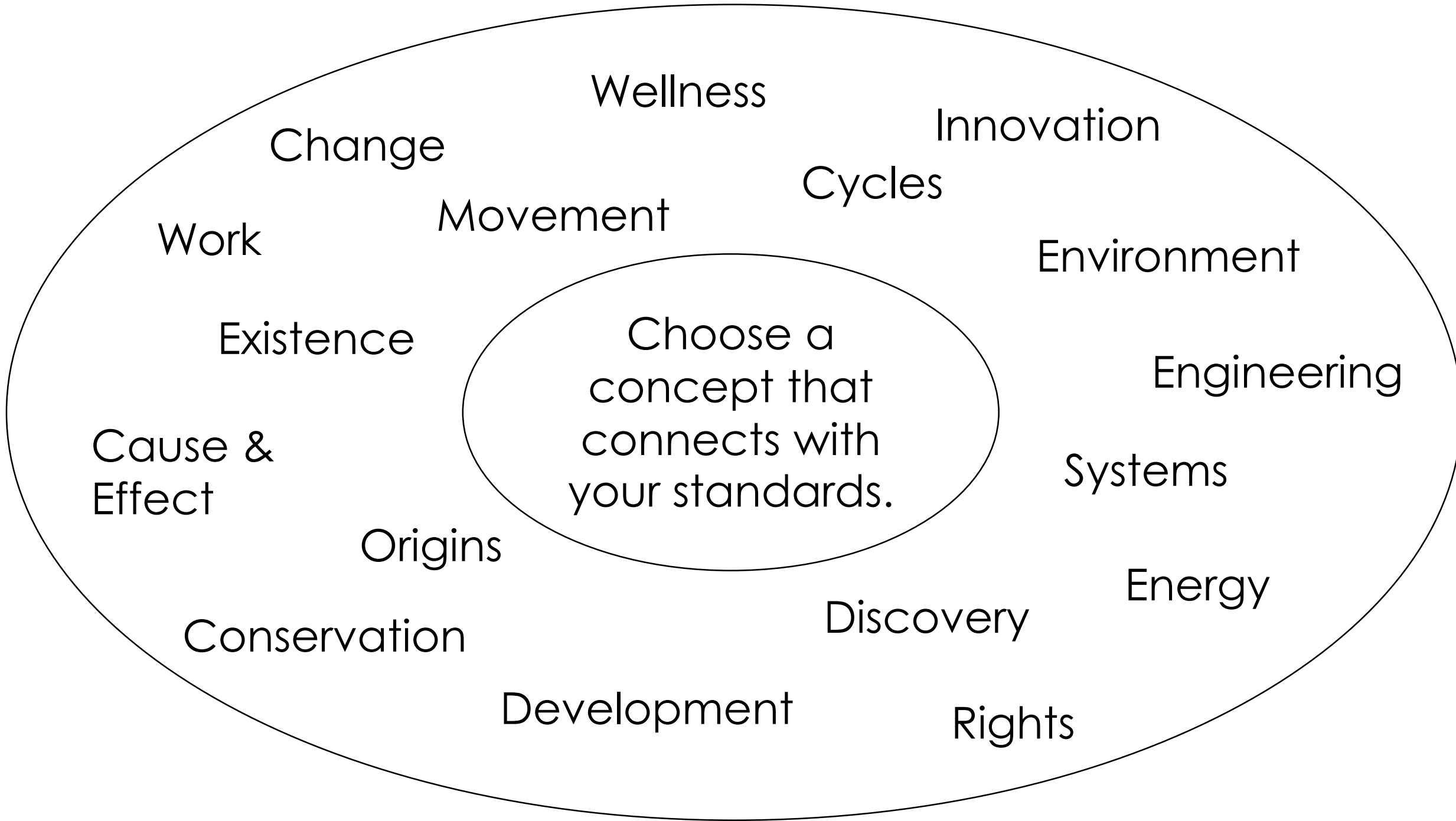
Project E3's Essential Questions

1 – In what ways does conservation protect__?

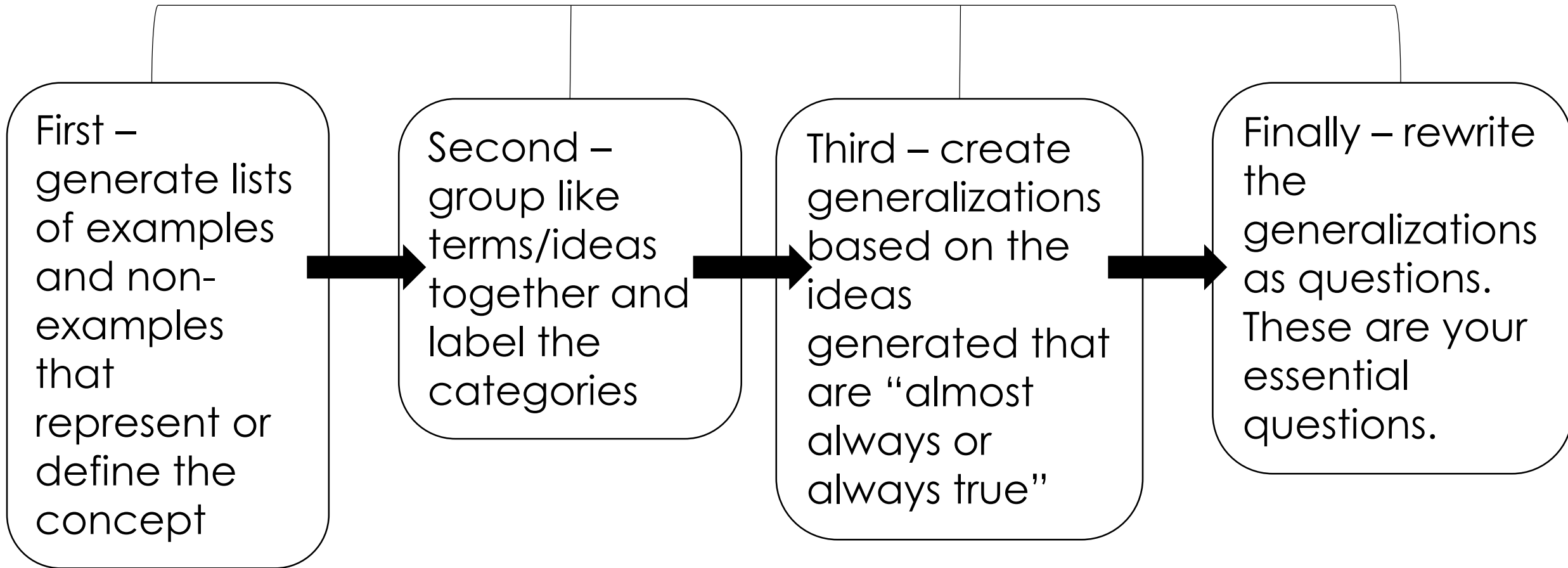


2 – How does nature conserve itself?

3 – What is the human responsibility to protect and to conserve?

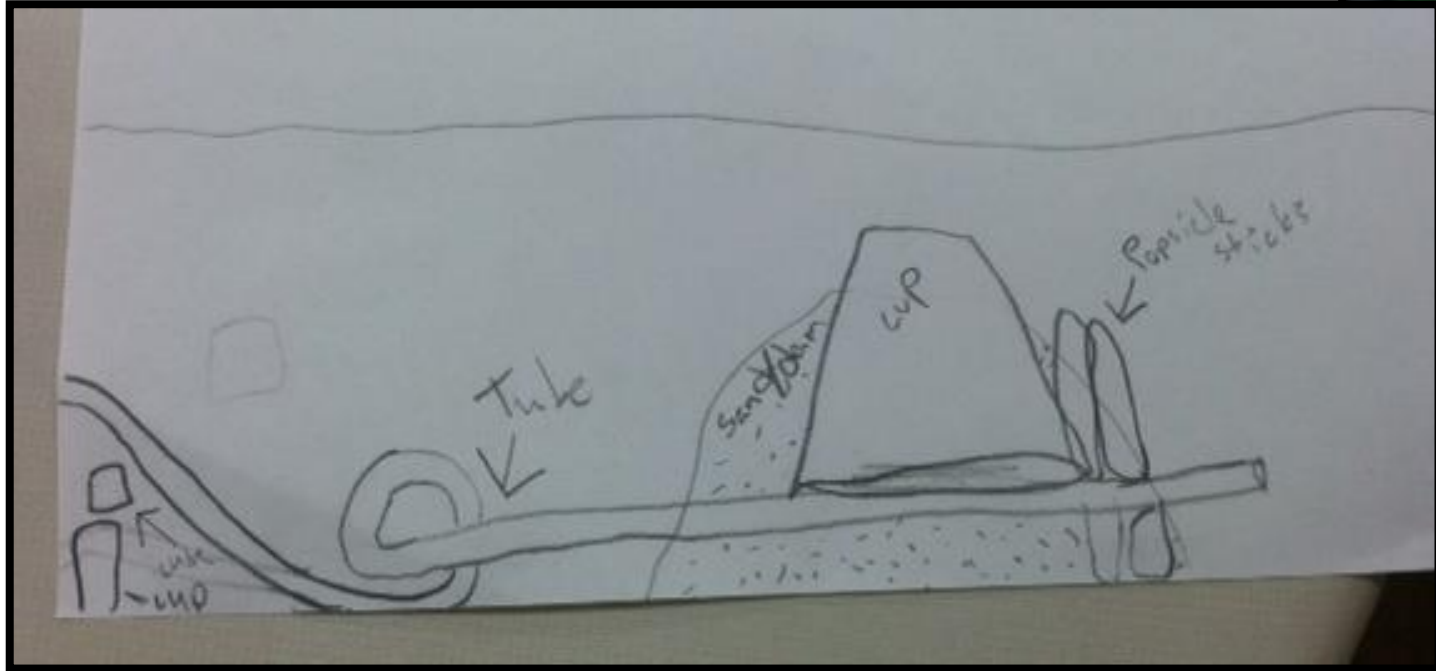


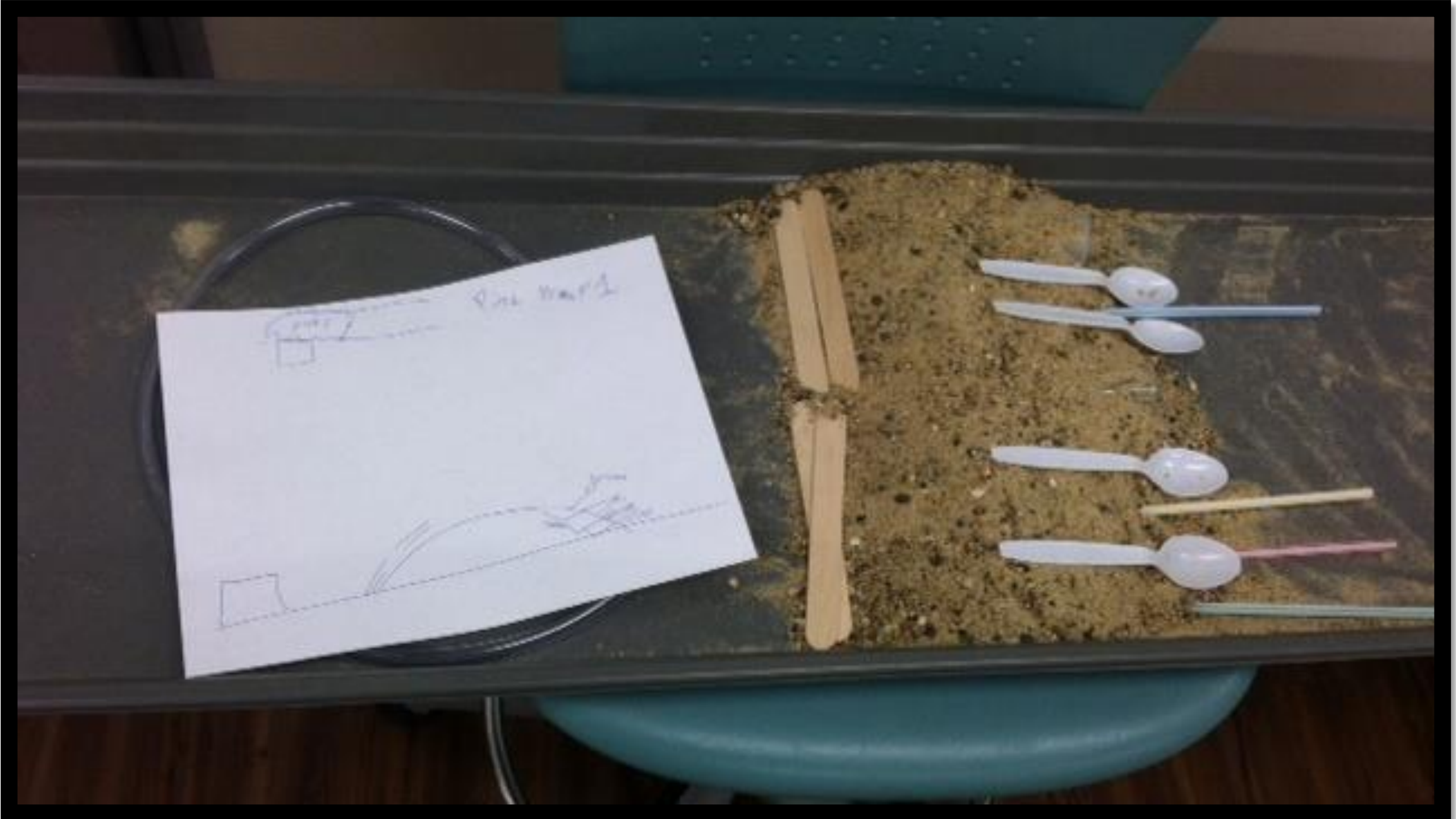
Developing Essential Questions



How can students improve water sources?







Soil Mass

Diagram showing a rectangular block of soil with a dashed line indicating a cross-section or measurement.

Two wooden clothespins used to hold the soil mound in place.

Two white plastic spoons with a blue stick inserted through the soil.

Two white plastic spoons with a yellow stick inserted through the soil.

Two white plastic spoons with a pink stick inserted through the soil.

A green stick inserted through the soil.

A rain of knowledge

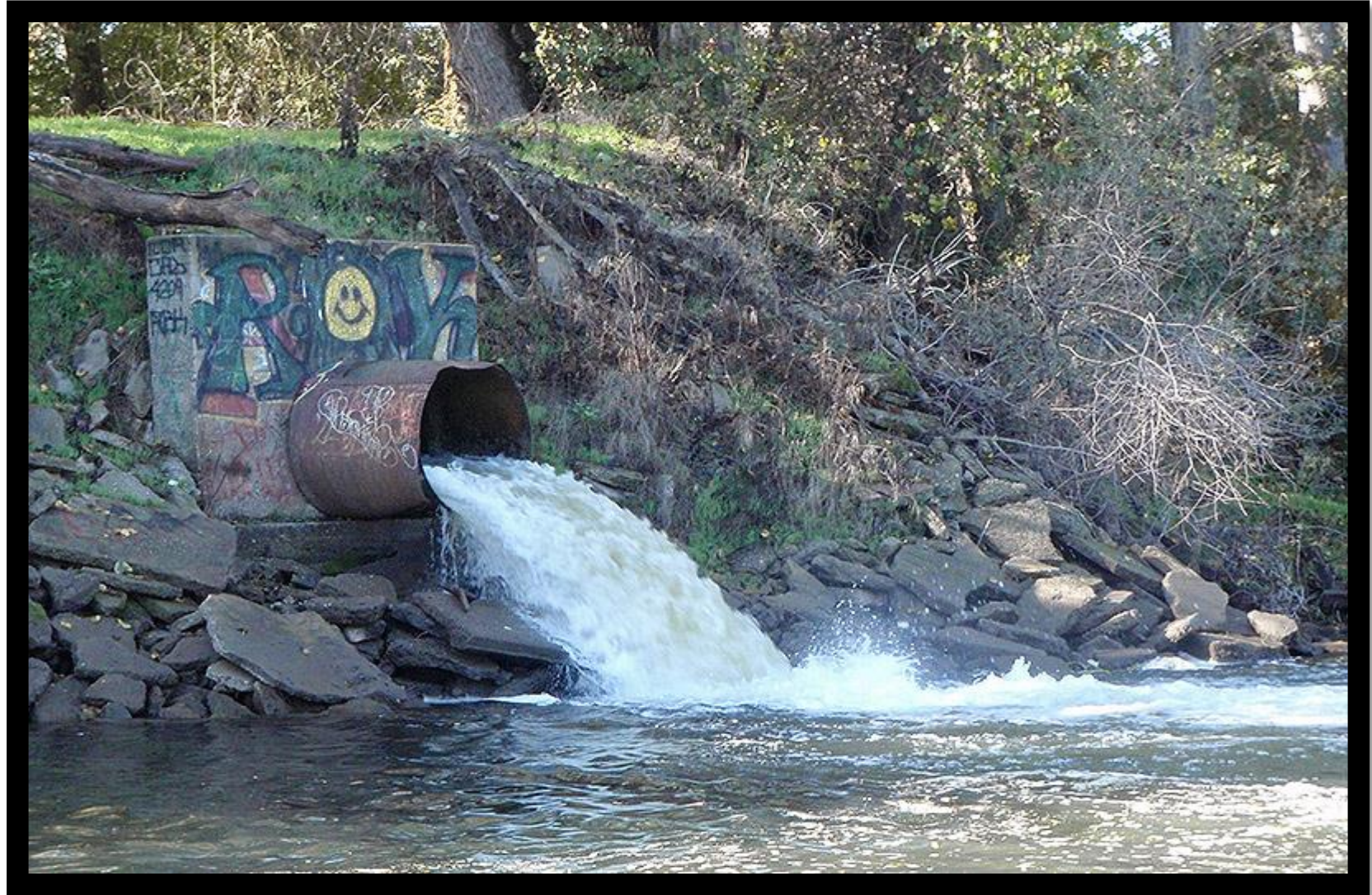


Erick Hernandez, left, of Austin and Dakota Robinson of Hayfield assemble a water-filtration unit as part of Project E3 Thursday at I.J. Holton Intermediate School. Photos by Eric Johnson/photodesk@austindailyherald.com





Who defines whose home this is?





Trey

My Aquatic Macroinvertebrate

Bug Name : Goggly

Description: wield so it does ~~not~~ filling t
looks really ~~great~~ predators. If adaptations are, it looking like
tickle so it can swim fish to get away
predators,

Adaptations and why they are needed:

The Adaptations are its tail so it can
up to 40 mph. they are needed so the
get away from big fish the sharks, s
and jelly fish.







How can innovations help as well as hurt?





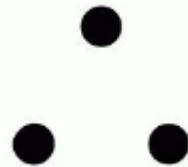
Concept Development Worksheet [Cash, 2011]

+

Words or Phrases the represent or define the concept.

-

Words or Phrases that DO NOT represent or define the concept.



Generalizations that explain the [+] and [-] categories.

?

Turn your generalizations into open-ended questions.

Question Quest!	Is / Isn't	Do / Does	Might / Might Not	Would / Wouldn't	Should / Shouldn't	Can / Can't
Who?	1	1	1	2	2	2
What?	1	1	1	2	2	2
When? Where?	1	1	1	2	2	2
Which?	2	2	2	3	3	3
Why?	2	2	2	3	3	3
How? What if?	2	2	2	3	3	3

Wiederhold Question Matrix	Event	Situation	Choice	Person	Reason	Means
Present	What is?	Where / When is?	Which is?	Who is?	Why is?	How is?
Past	What did?	Where / When did?	Which did?	Who did?	Why did?	How did?
Possibility	What can?	Where / When can?	Which can?	Who can?	Why can?	How can?
Probability	What would?	Where / When would?	Which would?	Who would?	Why would?	How would?
Prediction	What will?	Where / When will?	Which will?	Who will?	Why will?	How will?
Imagination	What might?	Where / When might?	Which might?	Who might?	Why might?	How might?

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Austin
Public Schools

Engaging and empowering **ALL** learners for life!



Project E³

www.projecte3.weebly.com

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