Energy Sleuths PLT   6/15

We found that Energy Sleuths did not align
to the PEs as well as ~~i~~ it did to the DCIs.

~~One reason for this was that the Engineering
category ETS~~

~~Science & Engineering Practices~~

We think that a scale to eliminate some of the
subjectivity would streamline the process and make
it a more legitimate measure.

SEP - Asking Questions & Defining Problems   1

DCI - ESS3.D   Global Climate Change   5

CCC -   ~~Cau~~ Stability & Change   0

Alignment of activity with a specific Performance Expectation

Source: _____ Proj. Learning Tree _____ Leopold Ed. Proj. _____ Proj. Underground

Grade __8__	Name of Activity: In the Driver's Seat

PE Code	The Performance Expectation
8-ESS3-3	

Clarification Statement

Assessment Boundary

The Three Dimensions listed specifically for this PE:

Strength Scale rating from previous work:

SEP	Constructing explanations & designing solutions	3
DCI	Human impacts on earth systems	4
CCC	Cause & effect	1

~~List connections to other SEPs, DCI and CCC for this activity:~~

add'l. SEPs * developing & using models   earned a 5
             * analyzing & interpreting data earned a 5

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Alignment of activity with a specific Performance Expectation

Source: __✓__ Proj. Learning Tree   _____ Leopold Ed. Proj.   _____ Proj. Underground

Grade 3-5	Name of Activity: Tree Factory

PE Code	The Performance Expectation
4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction.

Clarification Statement Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain and skin.

Assessment Boundary Assessment is limited to macroscopic structures within plant animals systems.

The Three Dimensions listed specifically for this PE:

Strength Scale rating from previous work:

The Three Dimensions	Rating
SEP Construct an argument w/ evidence, data and/or a model	0
DCI LS1.A Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior + reproduction.	3
CCC A system can be described in terms of its components + their interactions	5

List connections to other SEPs, DCI and CCC for this activity: Additional activities to reach 15!
→ to address structure in plants and Adaptations

Adaptation.
Add Tree Cookies (PLT 76) →
Artistry (WILD pg 128) → to address structure and for address
   function in animals (DCI score ↑)

Assessment: To fully address SEP present
an argument that plants an fulfills the PE.

Alignment of activity with a specific Performance Expectation

Source: ✓ Proj. Learning Tree _____ Leopold Ed. Proj. _____ Proj. Underground

Grade (4)	Name of Activity: Peppermint Beetle

PE Code	The Performance Expectation
4-LS1-1	Construct an argument that Plants; animals have internal; external structures that function to support survival, growth, behavior & reproduction.

Clarification Statement

Assessment Boundary

The Three Dimensions listed specifically for this PE:

Strength Scale rating from previous work:

SEP Engaging in Argument from Evidence	#3

DCI Structure & Function	5

CCC Systems & System Models	#1

9/15

List connections to other SEPs, DCI and CCC for this activity: Recommendations to make "Peppermint Beetle" a 15/15 score:

We suggest the students, at the end of the present activity in current form, construct a map (model) of the beetles' path based on the evidence.

They then present to peers their argument of why the beetle was taking this path - and why? (Food vs. Mate for example.)

Alignment of activity with a specific Performance Expectation

Source: **#67 (pg 284)** ✔ Proj. Learning Tree _____ Leopold Ed. Proj. _____ Proj. Underground

Grade **3-5**	Name of Activity: **How Big is Your Tree?**

PE Code	The Performance Expectation
3-5-ETS12	

Clarification Statement

NA

Assessment Boundary

NA

The Three Dimensions listed specifically for this PE:	Strength Scale rating from previous work:
SEP Constructing Explanations and Designing Solutions - Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design program.	4
DCI Developing Essential Solutions - Research on a problem should be carried out before beginning to design a solution.	4
CCC Influence of SET on Society and the Natural World - Engineers improve existing technologies or develop new ones to increase their benefit, decrease known risk, and meet societal demands.	3

~~List connections to other SEPs, DCI and CCC for this activity:~~
Recommendations to make into a 15 -

- Excellent math activity

- need to adapt to include information on: tree growth and forested ecosystems; factors that effect tree growth

- engineering section are lacking in progression

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Alignment of activity with a specific Performance Expectation

Source: ✓ _____ Proj. Learning Tree   _____ Leopold Ed. Proj.   _____ Proj. Underground

Grade 6	Name of Activity: Web of Life

PE Code	The Performance Expectation
06·LS2-3	

Clarification Statement

Assessment Boundary

The Three Dimensions listed specifically for this PE:

Strength Scale rating from previous work:

SEP	
Develop a model to describe phenemomena	5

DCI	
LS2B Cycle of matter and energy transfer in ecosystems	3

CCC	
Energy and Matter	5

List connections to other SEPs, DCI and CCC for this activity:

What can be added to make this a 15:

Include narrative about what the yarn represents, which is energy flow between organisms. Discuss how the producers use energy from the sun to manufacture sugar and the sugar transfer to organisms in the food web. When an organism dies, organic matter is returned to the soil.

Example: Add fungi or sowbugs or other decomposers into the food web. This will make DCI a "5"