Engaging in a Co-Design Activity

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Aim

• To decide on what kind of ecosystem(s) we’ll model as part of a culminating assessment activity, as well as the key features that need to be in that model
  – Focused on phenomenon or phenomena*
  – Of sufficient complexity to build understanding toward conceptual flow diagram we created
*Anchoring Phenomena*

Qualities of a good phenomenon (Reiser, 2014)

- A puzzling observable event or process
- Generates student interest and questions
- Intersects with numerous PEs
- Can be explored through science and engineering practices
Experiencing an Instructional Model: Challenge Cycle

The Challenge

Go Public

Generate Ideas

Test your mettle

Multiple Perspectives

Research & Revise

John Bransford

Dan Schwartz
Generate Ideas

What are some ecosystems (real or fictional) for which students could develop and revise models to help explain some phenomenon?

IDEO’s Rules for Brainstorming

- Defer Judgment
- Encourage wild ideas
- Build on the ideas of others
- Stay focused on the topic
- One conversation at a time
- Be visual
- Go for quantity
Multiple Perspectives

Conduct research in small groups (30 min)
• Unpacking LS-2 group (Jeff)
• Student interest and local connections group (Sam)
• Student difficulties group (Heather)
Each group records their research findings
Research and Revise

Jigsaw into new hybrid groups (30 min)

• Share what was learned
• Select 1-2 ecosystem models that could anchor the unit
• Prepare a 2-minute poster presentation that identifies your choice of ecosystem model(s) and outlines your justifications
Go Public

Give your proposal to the group
• Initial votes for ecosystems (2 sticky dots each)

Develop consensus through discussion:
• What might be a phenomenon* within an ecosystem that could anchor the whole unit?
• What other phenomena might be good to include and model?
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Reiser, B. (2014, April). Designing coherent storylines aligned with the NGSS for the K-12 classroom. *NSELA Conference*. Presentation in Boston, MA.