Deep Dive:

Learning Deeply in the Elementary Grades

Anna Kinsella
Director of School Coaching, New Tech Network
@annakinsella

Jodi Posadas
School Development Coach, New Tech Network
@jodihawk
New Tech Network (NTN) is a design partner for comprehensive school change. We work closely with districts and schools to create innovative learning environments. Through a proven school model, a project-based learning platform, and powerful professional development we guide schools toward lasting change and ongoing improvement.

We Are Creating a Nation Proud of its Public Schools
Who are you?

At your tables, share-out:

- Who are you?
  - Name
  - School / Organization
  - Location
  - Role

- What song represents your school year and why?
Collaboration Challenge

Build an inverse pyramid out of 15 cups and 5 paper plates.

*Note: You cannot stack cups within a single layer!*
Norms to “Try on” for the day

- Be curious
- Leverage our diverse perspectives
- Step outside our comfort zones
- Share the air
What to Expect Today

Experience an elementary project slice from an integrated PBL unit focused on Math, Science, and ELA as we get a student perspective and learn the “why” behind specific facilitation moves made. Then, embark on a journey to visually map your own project through careful unpacking of standards, backward design of scaffolds and benchmarks and discussion of embedded assessment practices for deeper learning outcomes. Participants in this Deep Dive will create a visual plan for a fully mapped project design.

Opening Moves

Sample Project Simulation, Exploration, and “Mapping”

Lunch

Developing Your “Map”

Adding Deeper Learning Outcomes to Your “Map”

Peer Review & Refinement

Closing Reflection

EXHIBITION

What will you be most curious about as we learn together? What are you hoping to take away?
What to Expect Today

Experience an elementary project slice from an integrated PBL unit focused on Math, Science, and ELA as we get a student perspective and learn the “why” behind specific facilitation moves made. Then, embark on a journey to visually map your own project through careful unpacking of standards, backward design of scaffolds and benchmarks and discussion of embedded assessment practices for deeper learning outcomes. Participants in this Deep Dive will create a visual plan for a fully mapped project design.

Session Learning Target:
I can create a visually mapped project that includes possible embedded assessments and the scaffolding needed for students to reach learning targets.
Project Mapping: A Sneak Peak
Road Map

It's Alive: A Call to Action!
Road Map
Building Our Map: The Beginning
The Beginning: Entry Event Simulation
The Beginning: Entry Event Simulation

- Playground Exploration with Graphic Organizer
- Knows & Need to Knows
- Problem Statement Development:
  How can we as... [role] do... [task] so that.... [purpose]?
- Group Contracts
Building Our Map: The End
The End

- Product / Assessment
- Reflection
- Presentation / Exhibition
Building Our Map: The Middle
Making Sense of the Middle

With your table group, explore the folder of artifacts showcasing different **benchmarks** and **scaffolding** students experienced in this project.

**Scaffolding**: The structures, activities, and processes that assist students in doing something they’re not able to do on their own—yet.

**Benchmarks**: Steps on the way toward completing products. They are substantial tasks that every group/individual completes in order to mark progress toward finishing products. Benchmarks are used to provide formative feedback.
Making Sense of the Middle

With your table group, explore the folder of artifacts showcasing different **benchmarks** and **scaffolding** students experienced in this project:

- What feels smaller (possible scaffold) vs larger (possible benchmark)?
- Do any artifacts seem to lead to another?
- What is an order that might make sense for these artifacts?
- What else might have happened?

**Scaffolding**: The structures, activities, and processes that assist students in doing something they’re not able to do on their own—yet.

**Benchmarks**: Steps on the way toward completing products. They are substantial tasks that every group/individual completes in order to mark progress toward finishing products. Benchmarks are used to provide formative feedback.
Building Our Map: The Middle
Building Our Map: Tracking Our Learning Targets
Session Learning Target:
I can create a visually mapped project that includes possible embedded assessments and the scaffolding needed for students to reach learning targets.
Optional Working Lunch

Work as an individual, partner up, or form a small group.

### Standards → Learning Targets

All projects should be standards-based and have a clear and narrow set of key standards as the foundation of the unit. It is often helpful to start with science or social studies standards and then pull in the appropriate ELA standards. Math may or may not be fully integrated into the unit, but an inquiry-based approach should be used for math instruction. Once you have identified your key standards, unpack these standards into smaller skill sets to develop learning targets that will drive the learning throughout the unit (refer to a simple project for examples of learning targets).

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<thead>
<tr>
<th>Subject Area</th>
<th>Standards</th>
<th>Learning Targets</th>
</tr>
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<tbody>
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### Project Brainstorm

Now that you have identified your standards and learning targets, use this mind map to brainstorm some possible project ideas that are authentic, high interest, and align for inquiry and deeper learning.

### Project Scenario, Entry Event, & Products

Determine an authentic project scenario that is high interest, allows for deep exploration and development of the key knowledge and skills. To launch the project, think about how to engage student interest with an entry event. Rather than starting with a letter or document above, consider an activity that promotes exploration and encourages inquiry and discourse. Products should allow students to demonstrate what they know and are able to do.

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<th>What is the scenario that will guide student inquiry throughout the project?</th>
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<td>What will be the hook to spark curiosity and initiate the inquiry? How will you introduce the students to their role and task?</td>
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<td>Student Products</td>
<td>How will you allow for voice and choice? What will students write? What is developmentally appropriate? What is group vs. individual?</td>
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<td>Presentation/Performance: Amish(s): Audience:</td>
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Lunch
Norms to “Try on” for the day

- Be curious
- Step outside our comfort zones
- Leverage our diverse perspectives
- Share the air
Rapid Brainstorm

Work as an individual, partner up, or form a small group.

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### Project Brainstorm

Now that you have identified your standards and learning targets, use this mind map to brainstorm some possible project ideas that are authentic, high interest, and allow for inquiry and deeper learning.

#### Project Scenario, Entry Event, & Products

Develop an authentic project scenario that is of high interest, allows for deep exploration, and development of the key knowledge and skills. To launch the project, think about how to engage student interest with an entry event. Rather than starting with a lecture or direct instruction, consider an activity that promotes exploration and encourages inquiry and discovery. Products should allow students to demonstrate what they know and are able to do.

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Let’s Get Mapping!

1. How will your project start?
   - Entry Event
   - Initiating Inquiry (Knows & Need to Knows, Problem Statement, etc.)
   - Group Formation (Group Contracts, Team Builder, etc.)

2. How will your project end?
   - Products/Assessments
   - Presentation/Exhibition
   - Reflection

3. Mapping backwards from the end, identify the key benchmarks.

4. Mapping backwards from each benchmark, identify the scaffolds.
Where is the Deeper Learning?
Adding Deeper Learning Outcomes to Our Maps

Where are students building... ?

Core Academic Content

Critical Thinking & Problem Solving

Collaboration

Effective Communication

Self-direction

Academic Mindset
Critical Friends Peer Review Protocol

3 min Presenter Shares & Quick Clarifying Questions

2 min I likes...

2 min I wonders...

2 min A next step might be... / A possible next step is...

1 min Presenter Reflects
Refining Your Maps
Closing Reflection

CONNECT: How are the ideas and information presented CONNECTED to what you already knew?

EXTEND: What new ideas did you get that EXTENDED or pushed your thinking in new directions?

CHALLENGE: What is still CHALLENGING or confusing for you to get your mind around? What questions, wonderings or puzzles do you now have?