Supporting Teachers in Their Shift to Project-Based Learning
Today’s Team

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Agenda

• What is Project-Based Learning (PBL) and why is it important?
• How district leaders designed a sustainable plan to prepare teachers to implement PBL
• Curriculum tools and resources to help teachers effectively implement performance tasks
About Norwalk Public Schools

Norwalk Public School Composition:
22 schools
- 12 elementary schools (PK-5)
- 5 middle schools (6-8)
- 4 high schools (9-12)
Enrollment: 12,000

Norwalk Demographics:
- 15% African American
- 51% Hispanic
- 26% White
- 14% SpED
- 61% F/RL
- 18% ELL
- 68% High Needs (1 or more of the subgroups above)

A school district that believes in choice!
- Montessori School
- Visual and Performing Arts School
- Bank Street School
- Center for Global Studies
- Pathways to Technology
- International Baccalaureate (IB)
- Project Lead the Way (PLTW)
- Dual Language School(s)
- Quad D School
- NEW! STEAM Magnet School!!
What is Project-Based Learning and why is it important?
## Top Skills Desired by Employers

### In 2015
1. Complex Problem Solving
2. Coordination with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity

### In 2020
1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordination with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

Empowering students to be successful today and in the future

- Research shows PBL is linked to “significant” improvements in student test scores, attendance, and engagement
- PBL is linked to improved higher-order thinking and problem-solving skills
Researchers predict that 65% of today’s grade schoolers will hold jobs that don’t exist yet.

Karl Fisch, Scott McLeod. “Did You Know?”, YouTube, July 2018
Project-Based Learning (PBL)

A teaching method that encourages students to learn and apply knowledge and skills through an engaging experience.

PBL presents opportunities for deeper learning in context and for the development of important skills tied to college and career readiness.
Teachers value the learning outcomes gained from PBL

Teachers say that teaching approaches that inspire creativity in the learning process have a bigger payoff for students (87%)

Teachers say their students often demonstrate problem-solving skills when they foster creativity in learning (75%)

Teachers say project-based assignments are a good measure of student learning (68%)

Teachers say that creativity in learning inspires better outcomes than traditional learning methods (64%)

Creativity in Learning Report, Gallup Inc. 2018
Vision: Norwalk believes that through authentic, engaging, high-interest, creative project-based learning STEAM experiences, ANY student can develop a problem solving, problem seeking, and critical thinking ability.

Mission: Provide staff with the tools to deliver the highest quality, most engaging instruction to support the development of the future-ready STEM skills they need to be successful today and in the future.
State of PBL in 2018:
• No coaches, no subject area leaders and no clear definition of PBL for the district

Goal for 2019 & beyond:
• K-8 Coaching Staff to support the design of PBL tasks
  • Columbus School is a model example for PBL learning
• Cohort Design team to design and implement 2 different STEAM PBL experiences to identify strengths and weaknesses and learn from the pilot
Norwalk’s Common Theme

A District Framework – P³

Project P³

- Engaging
- Authentic
- Purpose
- Investigate
- Concept, knowledge, skills
- Cross-Disciplinary

- Goal Setting
- Exploration
- Research
- Designing/Prototype
- Testing
- Reflecting
- Collaboration
- Project Management

- Communication/Discuss
- Reflection/Write
- Feedback
- Authentic Audience
- Public Exhibit
- Solution

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How can we support teachers to successfully implement STEM-based PBL units that are authentic and bring meaning to learning?
Scaling PBL PD - The Process

- Conduct a Needs Assessment: Understand the current state of PBL in the district
- Research best-practices and explore exemplars
- Review and Select Resources and Tools
- Design district planning templates based on a P³ to serve as an anchor and launchpad
- Ad-hoc team of teachers to develop and pilot PBL experiences with students
- Establish a System for Continuous Improvement

2018

2019
Anchoring Tools and Resources

2 Planning Templates: 1.) An overview planner which focuses on the broad picture of a PBL unit and 2.) an implementation planner that goes into lesson design

- Informed by research from reputable sources such as Edutopia, Defined Learning and PBL Works
- Piloted among a core group of teachers and students (6th-8th grade)

Tools:
- Defined Learning serves as a launchpad to help teachers hit the ground running with PBL

Overview Planner
Implementation Planner
Population
Planning Templates
Tools
As you begin planning for this P³ Learning Task, use these questions below to consider how you might make this project authentic and meaningful for all students.

<table>
<thead>
<tr>
<th>Things to Consider</th>
<th>Consider Your Students</th>
<th>Consider the Context</th>
<th>Consider the Content and Skills</th>
</tr>
</thead>
</table>
| **Consider Your Students** | • How can your students identify with this problem?  
• What might your students already know about this problem?  
• How can you support your students explore this context and effect change?  
• How much time would your students need at each phase?  
• What hands-on activity will your students do to play with ideas and materials, explore concepts and skills and tinker with tools? | **Consider the Context** | • What issues are prevalent in our community?  
• Are there local people/businesses that are already taking action around this problem? How can we partner with them?  
• Are there content experts who could support student teams as they explore the content in this project?  
• What conflicting interests might arise during the course of this project? How will you help students learn about and explore multiple perspectives related to these conflicts? |
| **Consider the Content and Skills** | **How will students apply what they have learned?**  
**Fail fast, fail often and fail forward:** How will you provide opportunities for students to test their thinking and products so they can evaluate both form and function?  
• How will students provide evidence for changes to their understandings, beliefs and skills?  
• How will you provide opportunities for students to give actionable feedback that prompts them to iterate their thinking and product?  
• How can you support students in the generation of their final product? What teachers can you collaborate with to build additional support skills?  
• What opportunities does this project offer to have students engage in experimental design? How will you structure and scaffold this process for your students within the context of the project?  
• How will you scaffold students’ understanding of the content? |
Norwalk PBL Implementation Planner
P3 Learning Task: Problem, Process, Product

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**How to use the document:** This planner offers guidance on how you might plan your daily lessons in the project calendar. Pick and choose what feels necessary to achieve the learning outcomes and advance product development for all students.

<table>
<thead>
<tr>
<th>Design Overview</th>
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<tbody>
<tr>
<td><strong>Project Title:</strong></td>
</tr>
<tr>
<td><strong>Timeframe:</strong></td>
</tr>
<tr>
<td><strong>SPARK:</strong> (Project Description/Engaging Scenario/Setting the Stage)</td>
</tr>
<tr>
<td>What will drive student engagement and interest in this challenge? (Describe the project with purpose, intention, and connection to the world around. May include a video of a career connection or primary source article of a current event as an entry point)</td>
</tr>
<tr>
<td><strong>Project idea:</strong> (Investigation, scenario, problem, challenge, issue, etc.)</td>
</tr>
<tr>
<td><strong>Key Vocabulary:</strong> (Note which terms or academic vocabulary will be essential to this lesson. If you serve English language learners, consider what additional vocabulary might be necessary for them to access the content/skills during the instructional activities.)</td>
</tr>
<tr>
<td><strong>Tools/Resources:</strong> (Student-facing tools, human resources such as experts or community members, teacher tools, equipment, etc.)</td>
</tr>
<tr>
<td><strong>Learning Outcomes:</strong> (These can be related to success skills or standards. If your district uses a graduate profile or career pathway outcomes, include relevant outcomes here as well.)</td>
</tr>
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**Learning SPARK**

<table>
<thead>
<tr>
<th>Driving/Guiding/Essential Question</th>
<th>Research</th>
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Developed by T. Henckel - Summer 2019; sources: PBL Works, The Leadership and Learning Center, DefinedSTEM, edutopia
PBL Training Process for New Teachers

- Teachers experience a Formal PBL task from a formal student perspective.
- Collaboration of teachers and coach through school-based modeling.
- Planning and Support for Effective Classroom Implementation.
- Follow-Up sessions to discuss challenges/successes.
- Ongoing Cycle.
Impact of Norwalk’s PBL PD

• Coach perspective
  • Christina Cormier – STEAM Coach

• Teacher perspective
  • Kate Curran – Teacher in Residence STEM
Next Steps for Norwalk

1. Collaboration across disciplines for planning
2. On-going cycle of support
3. Repository of exemplar PBL tasks for teachers to utilize
4. Video of teachers effectively implementing
5. Identify model classrooms for teacher visits
Q & A

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Providing Educators with a Launchpad for PBL

- **Career-Focused Projects**: Standards aligned projects complete with engaging videos, editable rubrics, research resources, and more.
- **Project & Portfolio Manager**: Online student project and portfolio manager to assign and assess growth over time.
- **PD Resources**: In-person and online PD opportunities.
Empowering Students with Career-Focused Performance Tasks

Career Exposure

Solve a Real-world Problem

Collaborate and Think Critically

Student Portfolio & Reflection

Real World Video

Performance Tasks

Product Creation

Student Portfolio
Thank you!

For more information visit our website at www.DefinedLearning.com