WINTHROP ELEMENTARY SCHOOL

FEBRUARY 8, 2016

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Perkins Eastman | DPC

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EXPERIENCE & EXPERTISE

33
Years Focused on K-12

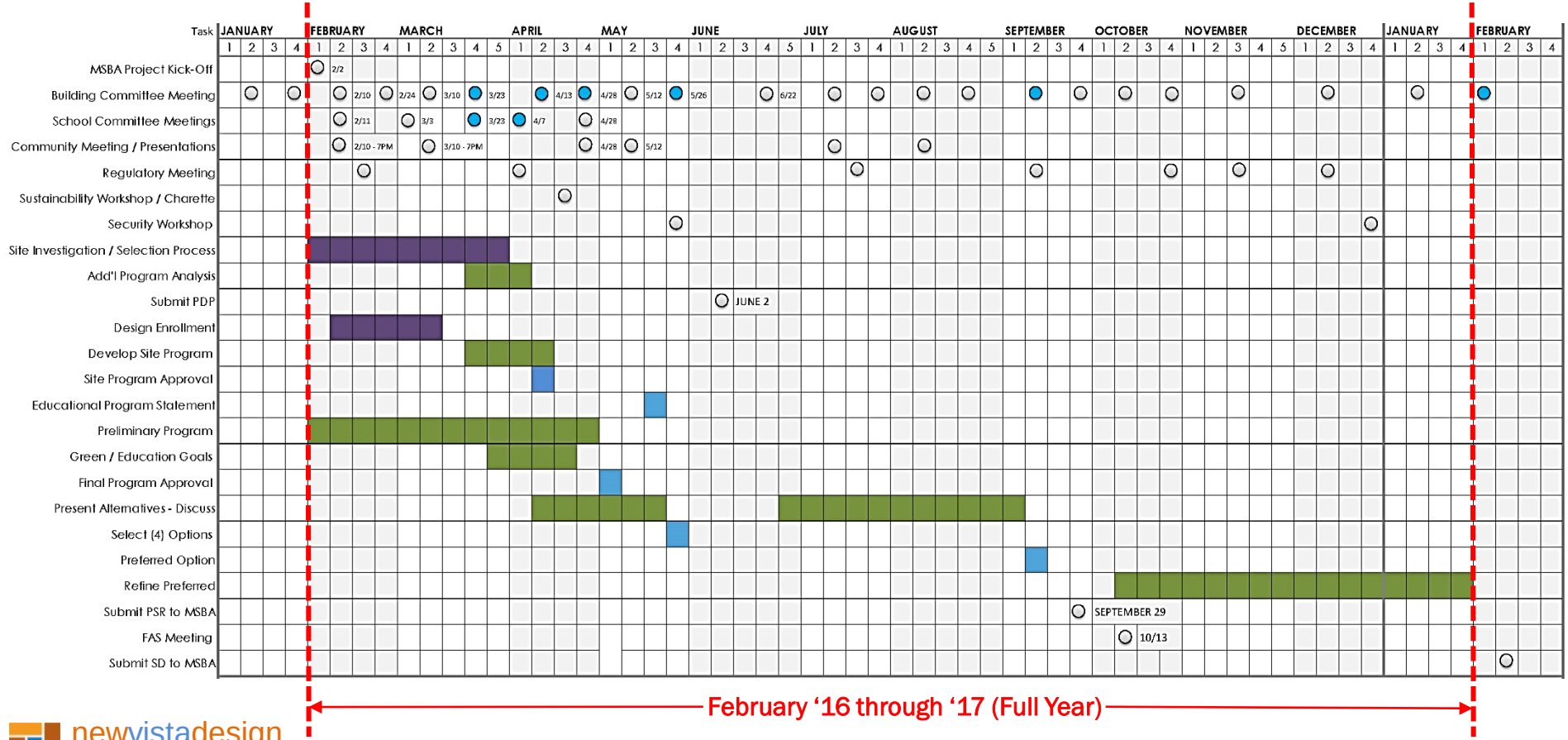
125
Projects

50
Elementary Schools

75%
Renovation/Additions (Most Phased/Occupied)

MSBA/IPSWICH PROCESS

FEASIBILITY & SCHEMATIC DESIGN



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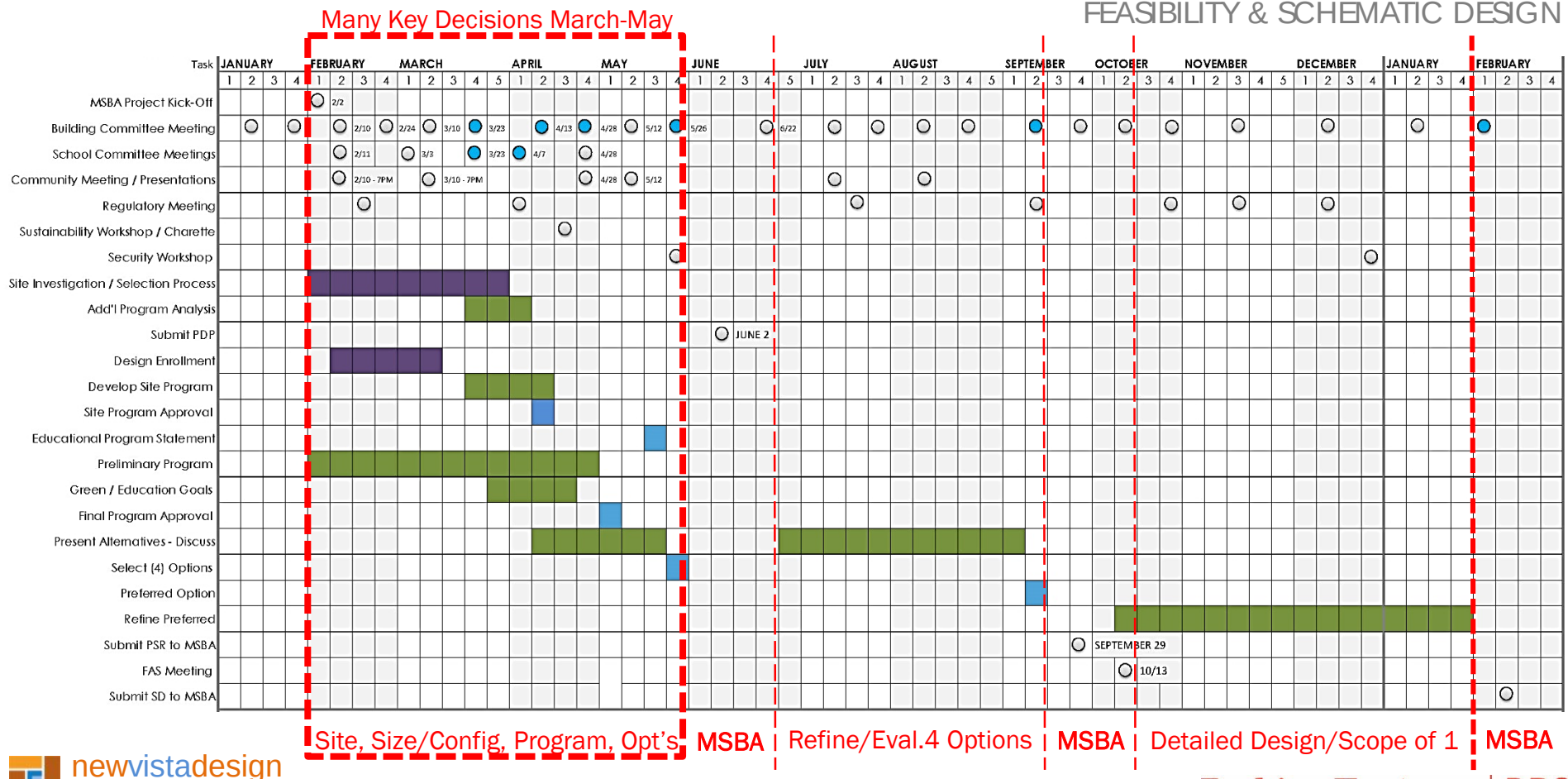

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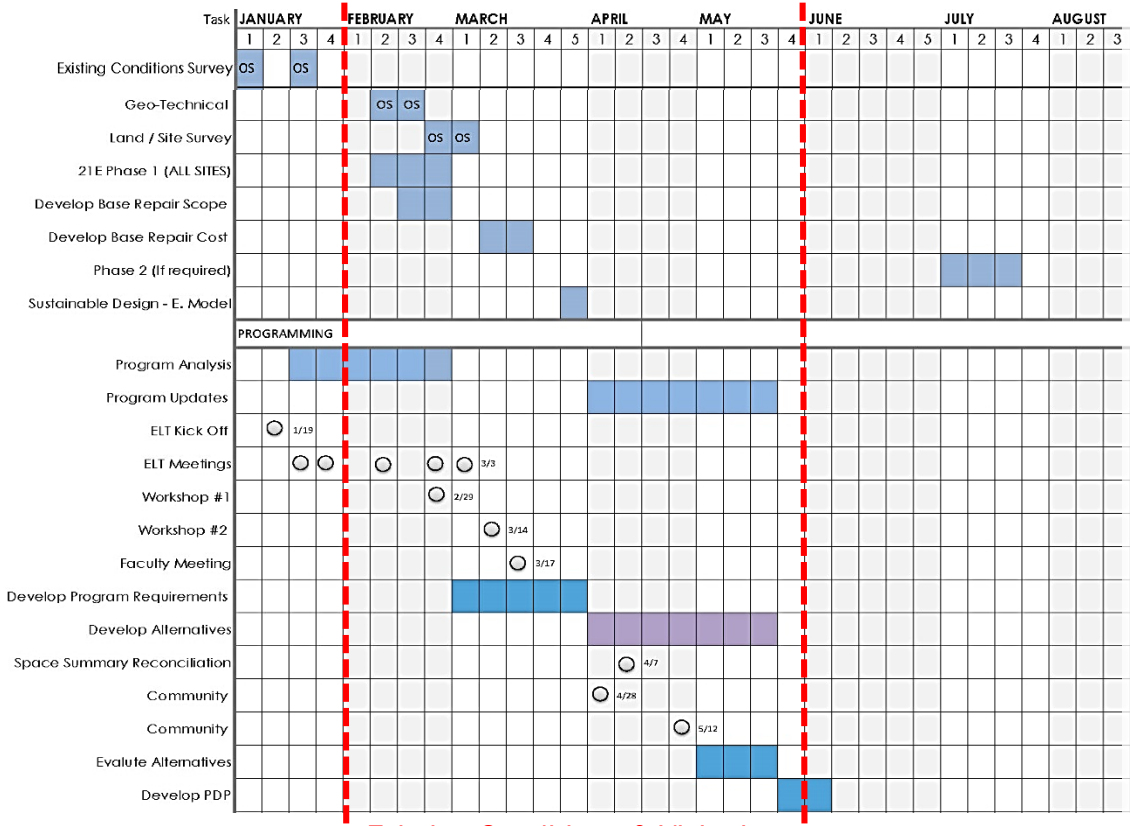
MSBA/IPSWICH PROCESS

FEASIBILITY & SCHEMATIC DESIGN

Dual Tracks & Many Specialists



Existing Conditions & Visioning

January - February

- Info Gathering (Existing Cond's & Program)

February-March

- Educ. Visioning (Work Shops & Forums)
- Establish Goals & Objectives

March

- Develop Educ./Site Programs
- Select Grade Configuration

April

- Approve Program & Site
- Develop Planning Options

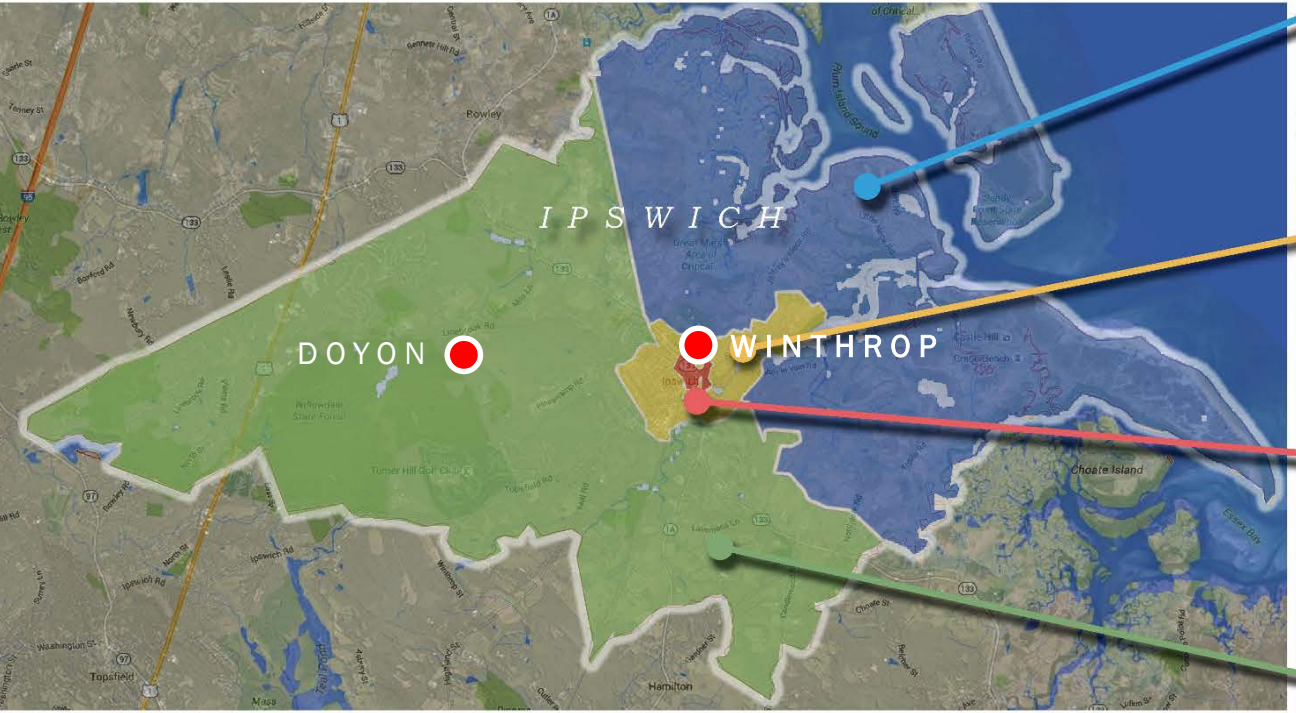
May

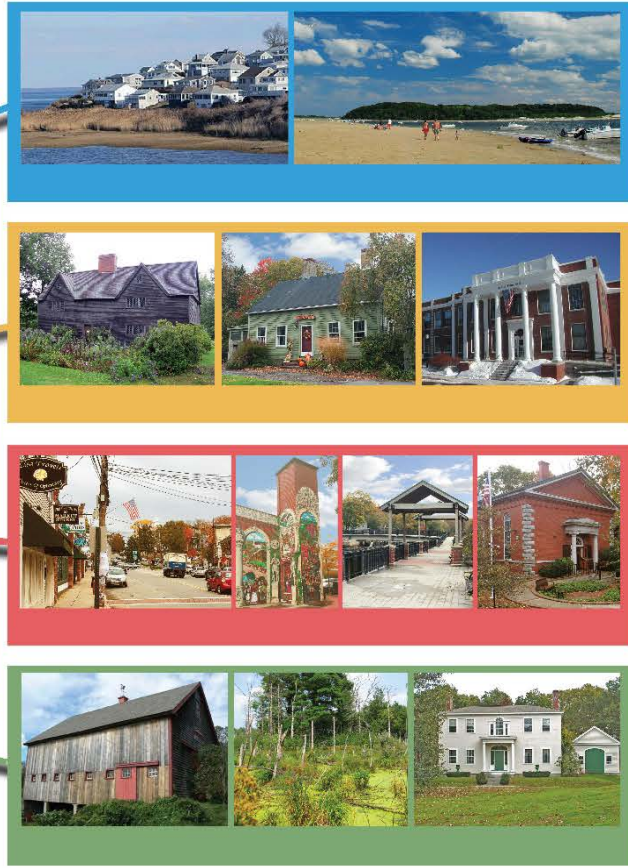
- Refine Planning Options
- Select (4) Preferred Options

June (Submit PDP Report)

INFORMATION GATHERING

GETTING TO KNOW IPSWICH



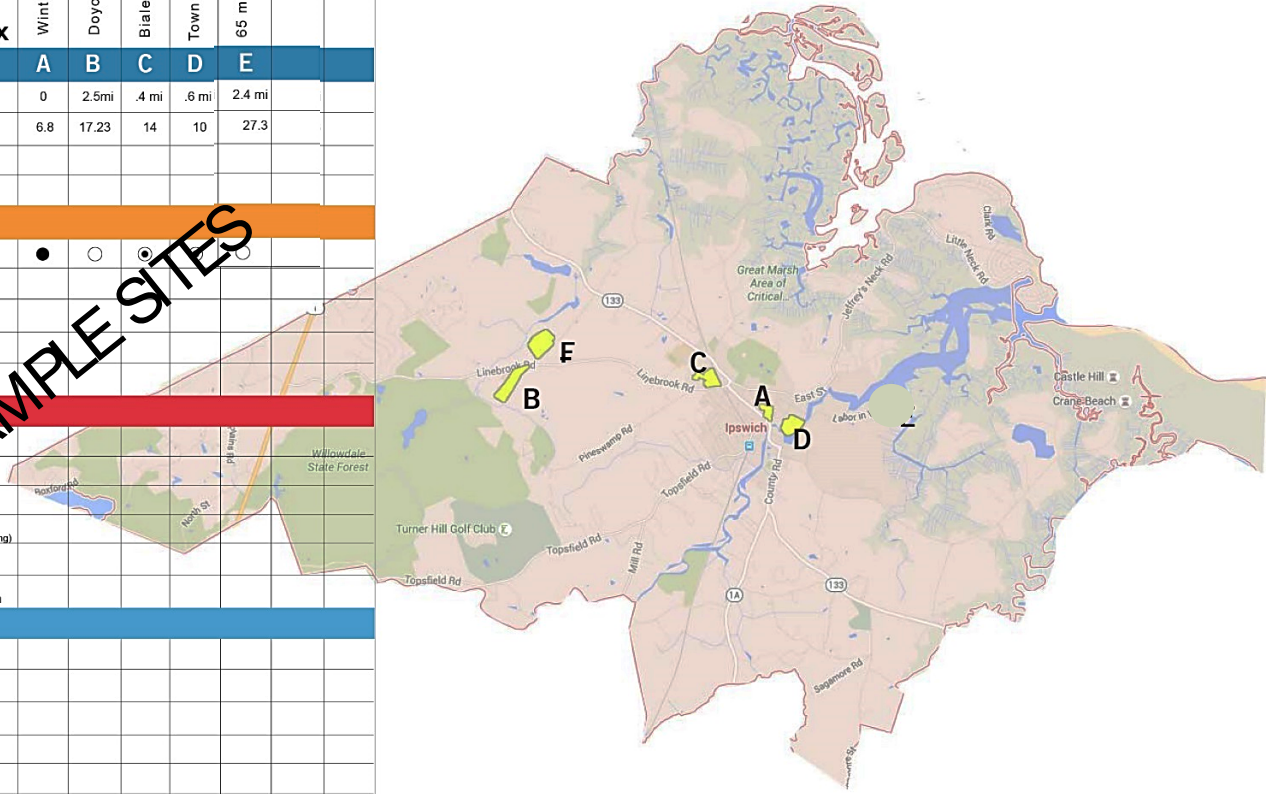


SITE ASSESSMENTS

EVALUATIONS & TEST FITS

Feasibility - Comparison Matrix	Winthrop School	Doyon School	Bialek Park	Town Hall Site	65 mile Lane Park		
Site Considerations	**A**	**B**	**C**	**D**	**E**		
1. Distance from existing school	0	2.5mi	.4 mi	.6 mi	2.4 mi		
2. Overall Size of Site (acres)	6.8	17.23	14	10	27.3		
3. Site aquistion / legal issues							
4. Regulatory restrictions							
Community Values							
1. Location	●	○	◉	○	○		
2. Traffic							
3. Recreational Field Space							
4. Re-use of Facilities/Playgrounds							
5. Abuttor Impact							
Educational Criteria							
1. Proximity To Students Served							
2. Outdoor Learning Opportunities							
3. Municipal Learning Opportunities							
4. Optimal Plan(orientation, # of floors, zoning)							
5. Ed. Impact During Construction							
6. Include ECE and/or Central Admin							
Capital & Operational Cost							
1. Site / Utility Infrastructure							
2. Site Acquisition							
3. Busing / Transporation							
4. Phasing / Swing Space Cost							
5. Maintenance / Operation							
6. Energy							
7. Staffing							

EXAMPLE SITES



GRADE CONFIGURATION ASSESSMENT

LOOKING AT THE IMPLICATIONS (FOR IPSWICH)

Implications of Enrollment Options | WWSBP

	K-6, 360 Students	K-6 Configuration with Two K-6 Wings, 670 Students	Unified District, Two Grade 2-6 Wings, 750 Students	Unified District, Grade 2-6 with Grade 2-4 & Grade 5-6 wings, 750 Students
High Quality Classrooms with Acoustic Privacy	62% of students	100% of students	100% of students	100% of students
ADA Compliant Classrooms	62% of students	100% of students	100% of students	100% of students
SE-Specialized Programs	BB & AIMS would likely move to either CF or WW	BB, AIMS, & ILC all in same K-6 building	BB, AIMS, & ILC all in new building; early childhood programs will need to be developed at CF	BB, AIMS, & ILC in new building; early childhood programs will need to be developed at CF
Zoning (Socio-economic balance)	Can address via required redistricting	Can address if districting occurs (optional in this model)	Can address via required redistricting	Will be addressed by default
Zoning (Equity in Specialized Programs)	Unaddressed	Partially addressed	Fully Addressed	Fully Addressed
Zoning (resolving the "islands" in the zoning of apartment complexes)	Unaddressed	Unaddressed	Addressed	Addressed
# of Enrollment Zones	3	2	2	1
Redistricting	Some students currently in WW & CF would attend BB	Redistricting makes geographic & financial sense but is not required	All students are redistricted into 2 town-wide schools	All students are redistricted into 2 town-wide schools
ELL Newcomer Program	Not feasible	Feasible at new building, not at CF	Feasible in all schools	Feasible in all schools
Transportation	No additional	Additional $0-$110,000/year based on whether redistricting occurs	Additional $220,000/year	Additional $220,000/year
Operational Savings (including transportation)	$0 (and additional costs to maintain Fort River)	$400,000-$500,000/year (depending on redistricting/transportation)	$475,000/year	$475,000/year
Peer Mentoring	Possible across 7 grade levels	Possible across 7 grade levels	Possible across 5 grade levels	Possible across 5 grade levels
Teacher Collaboration	Same as current model	Additional job-alike collaboration opportunities for staff at new school; not at CF	Additional job-alike collaboration opportunities for all staff	Highest levels of job-alike collaboration for all staff
Crocker Farm Implications	Remains a PreK-6 with redistricting	Remains a PreK-6 with possible redistricting	Becomes PreK-1 Early Childhood Center	Becomes PreK-1 Early Childhood Center

EXAMPLE ASSESSMENT

Factors to Consider

- Travel (Cost and Time)
- Parent Involvement Increase/Decrease
- Size of Each Grade Level
- Number of School Transitions
- Interaction Opportunities Among Grades
- Ipswich Specific Goals/Concerns

Research on Configuration

- No Definitive Answer on Most Effective
- Studies Focus on Quality of Environment, Teaching, Transitions & Parent Involvement

Advantages of K-2 and 3-5

- Consolidates Grade Level Resources
- Students Feel Safe With Similar Age Group
- More Opportunities Among Grade Levels

Advantages of K-5

- More Convenient for Families/Involvement
- Builds Familiarity & Communication Spans
- Less Transition Between Schools
- More Opportunities Between Grade Levels

IPSWICH'S CORE EDUCATIONAL LEADERSHIP TEAM

DESIGN WORKING GROUP

IPSWICH COMMUNITY GROUPS

VISIONING PROCESS FOR THE WINTHROP SCHOOL

STEAM LEARNING GOALS AND BEST PRACTICES

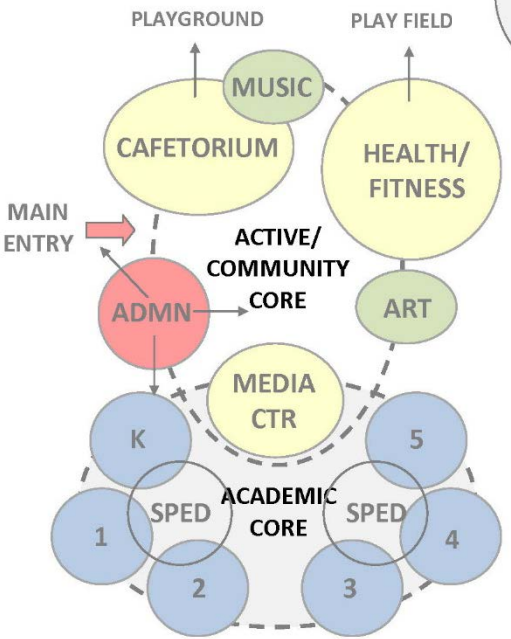
DESIGN PATTERNS AND GUIDING PRINCIPLES

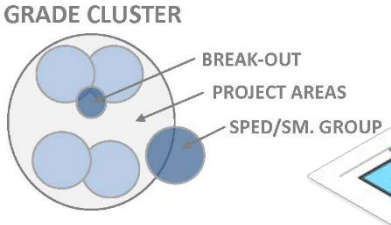
KEY SPACES, ADJACENCIES AND CONCEPTUAL DESIGN DIRECTIONS

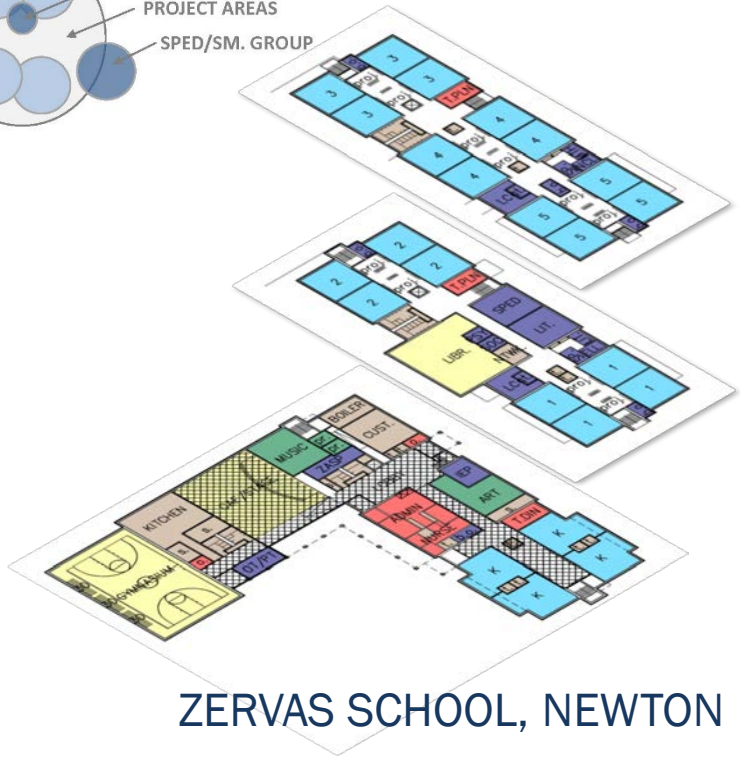
PROGRAMMING & DESIGN

TRANSLATION OF NEEDS & OBJECTIVES

CORE CLASSROOMS	**23,300 sf**	
▪ Kindergarten	4 per Grade	
▪ 1st-2nd Grade	4 per Grade	
▪ 3rd-5th Grade	4 per Grade	
SPECIAL EDUCATION	**5,825 sf**	
▪ Full Size Room	1 (SPED)	1 (LITERACY)
▪ Half Size Room	1 (OT/PT)	2 (IEP/ELL)
▪ Learning Center	1 (at K-2)	1 (at 3-5)
▪ Office/Conference	2(ADMN)	4 (at 3-5)
▪ Quiet Rooms	1 (at K-2)	1 (at 3-5)
▪ Breakout	1 per Grade	
ART/STORAGE	**1,150 sf**	
MUSIC/ENSEMBLE	**1,575 sf**	
MEDIA CENTER	**2,875 sf**	
GYMNASIUM	**6,000 sf**	
▪ Office/Storage	**300 sf**	
CAFETERIA/STAGE	**4,675 sf**	
▪ Kitchen/Storage	**2,153 sf**	
▪ Staff Lunch	**500 sf**	
ADMIN/GUIDANCE	**2,790 sf**	
▪ Nurse's Suite	**510 sf**	
CUSTODIAL/STORAGE	**1,865 sf**	
	53,518 NSF	
x 1.5	**80,277 GSF**	







ZERVAS SCHOOL, NEWTON

Winthrop and Doyon Elementary School
February 10 , 2016

Educational Visioning

IPSWICH
PUBLIC SCHOOLS

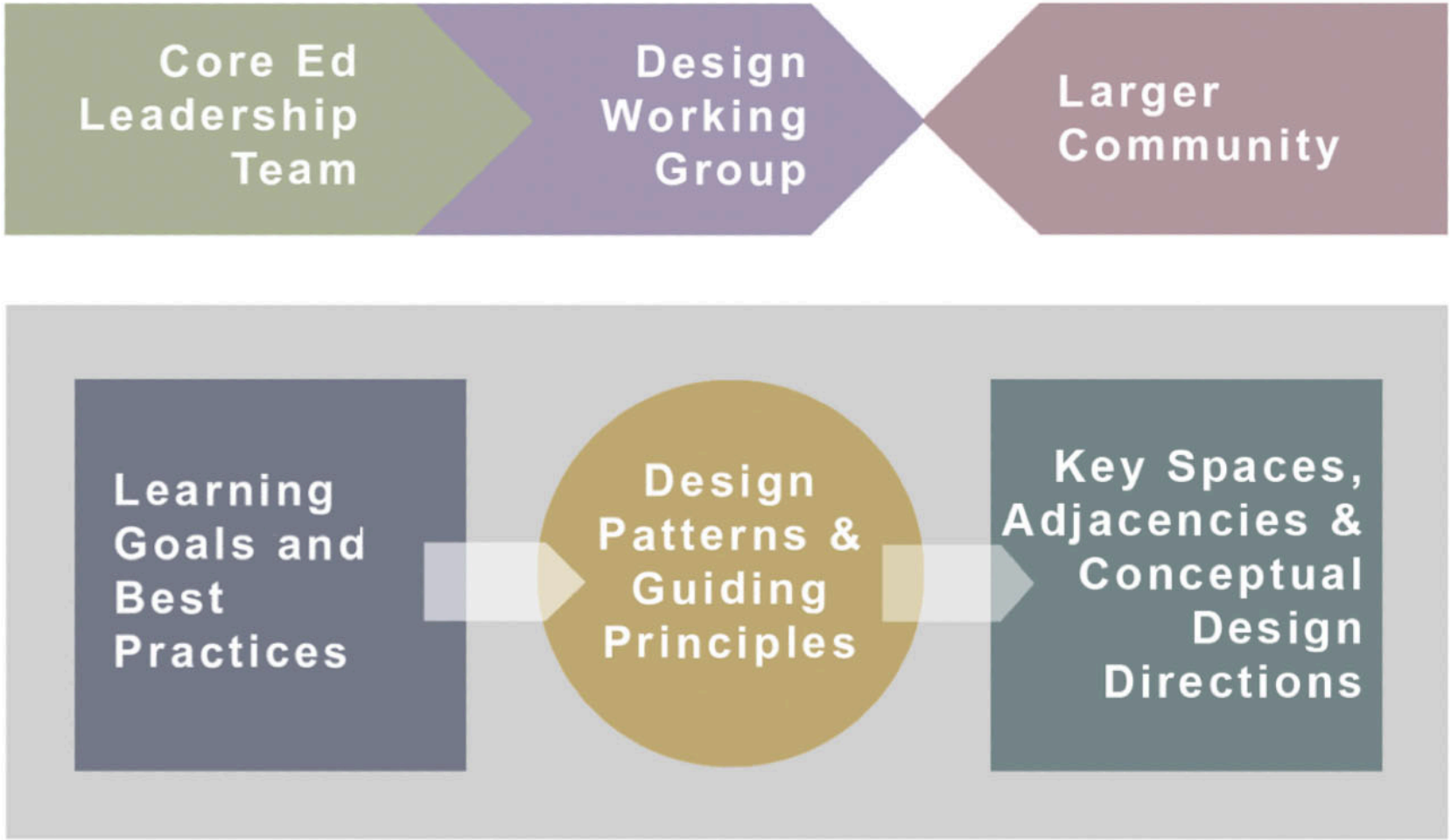
newvistadesign
Envisioning 21st Century Schools

Perkins Eastman \ DPC

Today's Agenda

- Visioning Overview and Introductions (15 min)
- Priority Goal Setting for the new/renovated elementary school (25 min)
- 21st Century Schools Presentation (25 min)
- 21st Century Learning Goals Activity (20 min)
- Grade Configuration Considerations (30 min)
- Closing and Next Steps (5 min)

The Visioning Process



- EWG Workshop ONE – February 29, 2016
- Community Forum TWO – March 10, 2016
- EWG Workshop TWO – March 14, 2016
- Faculty Workshop – March 17, 2016

Best Practices

21st Century Learning and PBL

21st Century Teaching and Learning

The Three Rs

- Reading
- Writing
- Arithmetic

The Four Cs

- Critical Thinking
- Communication
- Collaboration
- Creativity

plus Citizenship

Head & Hand

Growth Mindset

- Student-Centered
- Interdisciplinary
- Technology-Infused
- Community Connected
- Problem- and Project-Based
- Process and Product Oriented

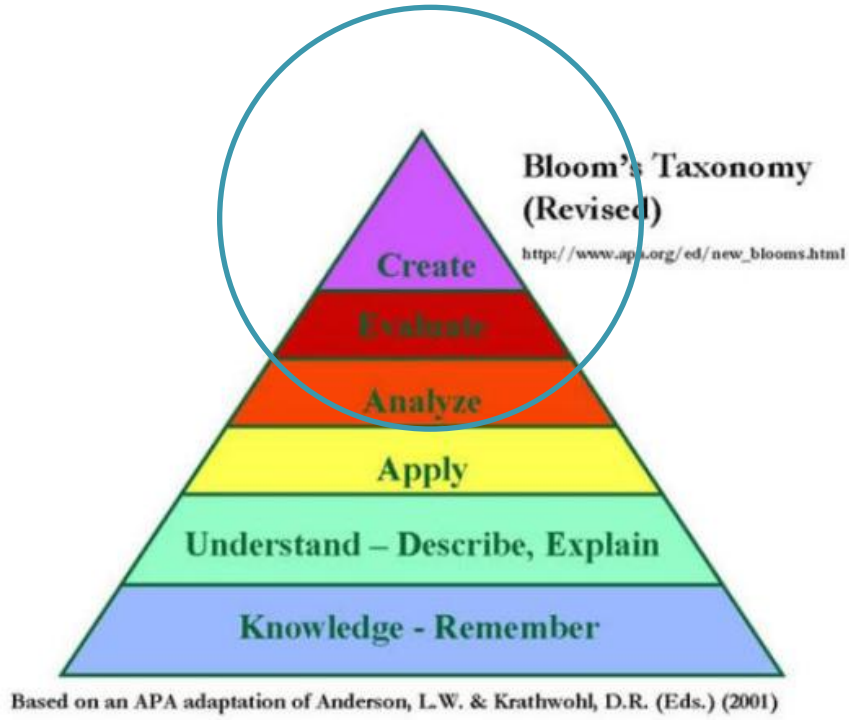
The 6 Rs and Bloom's

The Old 3 R's

- Reading
- wRiting
- aRithmetic

The New 3 R's

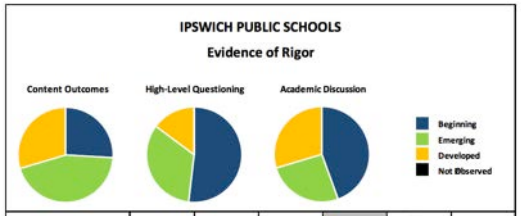
- Rigor
- Relevance
- Relationship



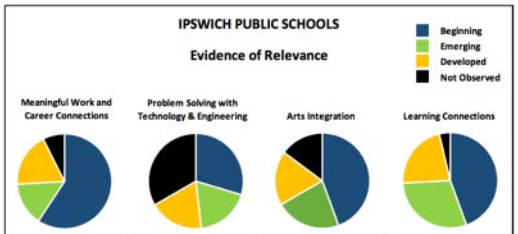
Ipswich Successful HOMs

Ipswich Indicators

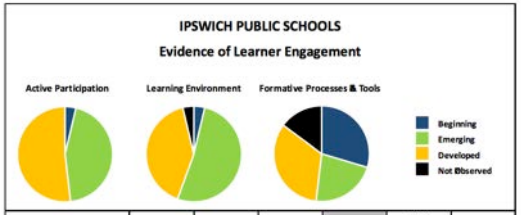
- Rigor
- Relevance
- Engagement



Component	Beginning	Emerging	Developed		Not Observed	Total
Content Outcomes	7	12	8		0	27
High-Level Questioning	14	9	4		0	27
Academic Discussion	12	7	8		0	27



Component	Beginning	Emerging	Developed		Not Observed	Total
Meaningful Work and Career Connections	16	4	5		2	27
Problem Solving with Technology & Engineering	8	5	5		9	27
Arts Integration	12	6	5		4	27
Learning Connections	12	8	6		1	27



Component	Beginning	Emerging	Developed		Not Observed	Total
Active Participation	1	12	14		0	27
Learning Environment	1	14	11		1	27
Formative Processes & Tools	8	6	9		4	27

EdLeader21

PARTNERSHIP FOR 21ST CENTURY SKILLS

21st Century Skills Framework

Learning & Innovation Skills

- Critical Thinking & Problem Solving
- Creativity & Innovation
- Communication & Collaboration

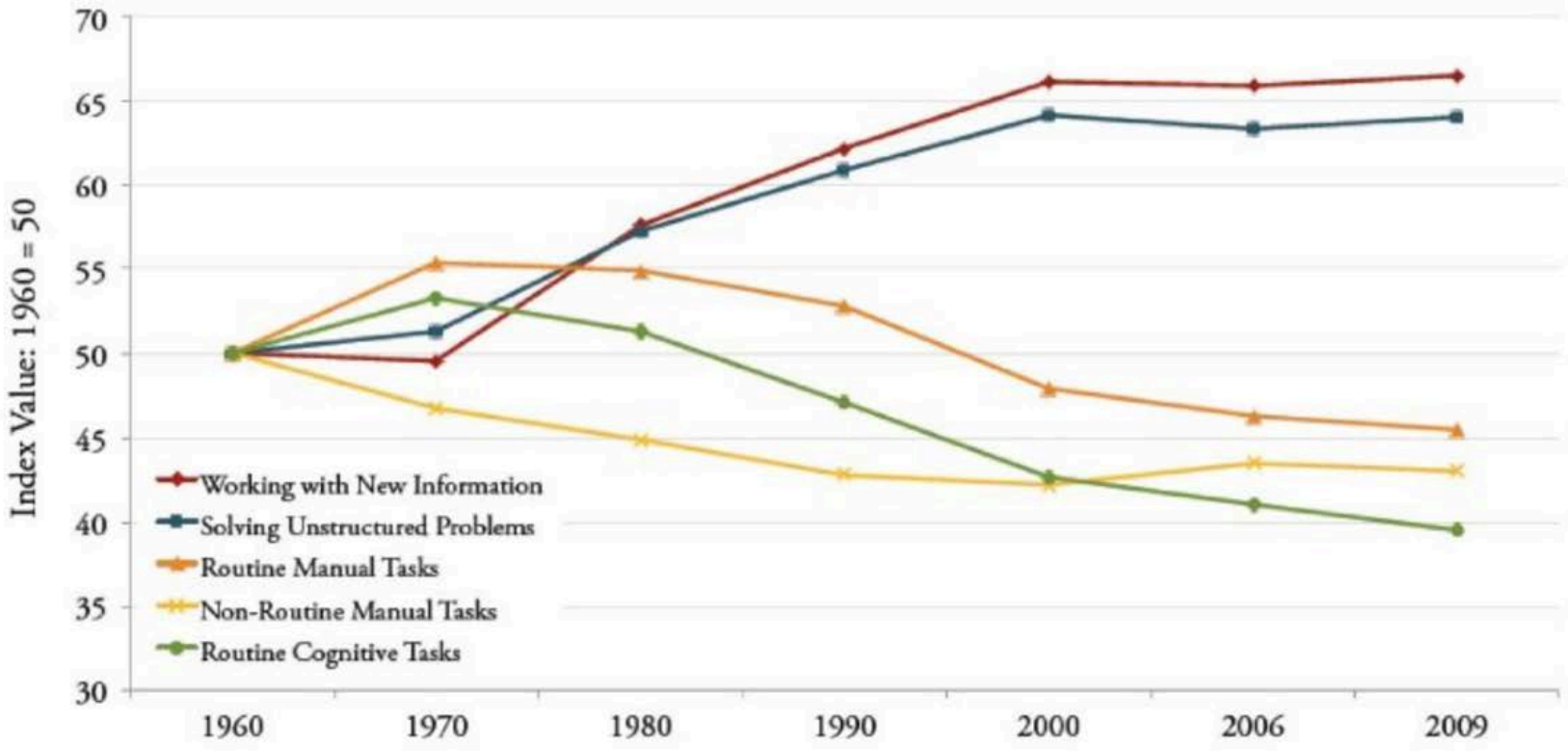
Information, Media & Technology Skills

- Information Literacy
- Media Literacy
- ICT (Information, Communications & Technology) Literacy

Life & Career Skills

- Flexibility & Adaptability
- Initiative & Self-Direction
- Social & Cross-Cultural Skills
- Productivity & Accountability
- Leadership & Responsibility

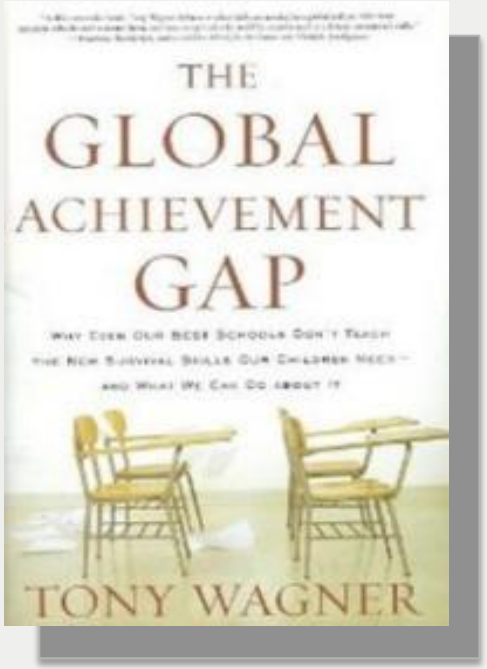
Charles Fadel



Dances with Robots: Human Skills for Computerized Work, Levy and Murnane, 2013

Focus on Doing not Knowing

The world no longer cares about how much you know, the world cares about what you can do with what you know – *Tony Wagner*



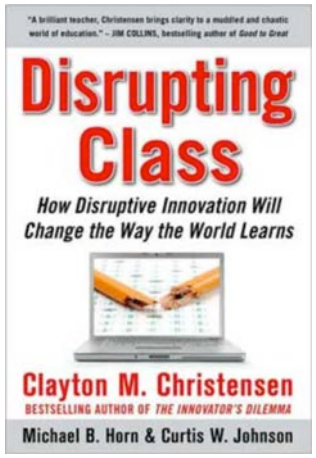
- Critical Thinking and Problem Solving
- Communication, oral and written
- Collaboration and Leadership
- Creativity, Curiosity and Imagination
- Accessing and Analyzing Information
- Initiative and Entrepreneuralism
- Agility and Adaptability

Focus on Learning NOT Teaching

- High-performance work environments
- Varied and collaborative
- Lifelong learning

Blended Learning

- Seamless Technology Integration
- Online and Virtual Delivery
- Production of Technology

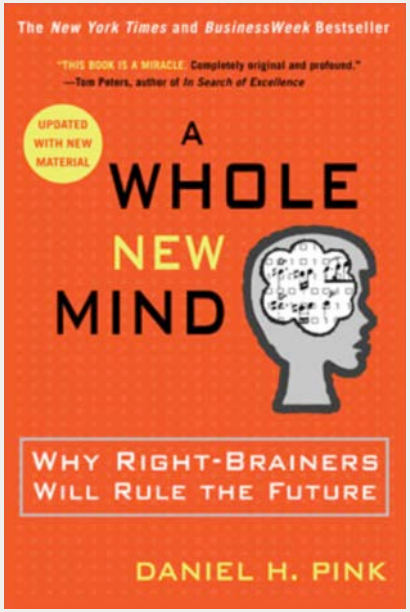


Whole Brain Thinking

- Asia, Automation and Affluence
- Differentiated instruction
- Whole child approach

1. Design
2. Story
3. Symphony
4. Empathy
5. Play
6. Meaning

6 Senses for the Conceptual Age

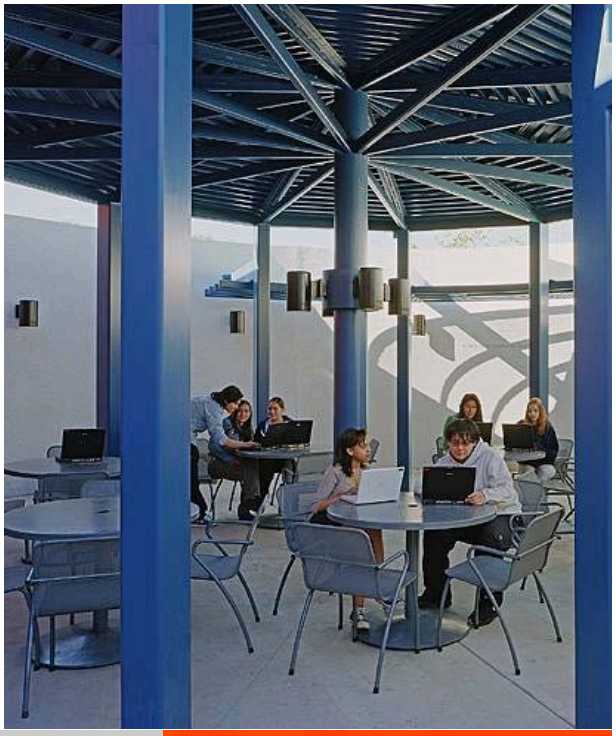


Differentiated Instruction

- Student Choice/Personalization
- Self-Paced and Small Group
- Anywhere, anytime learning

Anytime, Anywhere Learning

- Flip Classrooms
- Virtual Delivery
- MOOCs



Inquiry-Based Instruction

- Problem and Project-Based
- Authentic Contexts
- Performance assessment
- Product creation

Common Core and the 4 Cs

Inquiry-Based Continuum

- Comprehensive Schools
- Project-Based Learning
- Expeditionary Learning
- CTE Programs
- STEM and STEAM
- Progressive & Constructivist Programs
- IB Schools
- No Excuses Schools
- Charter Schools

STUDENT PROJECTS

- Classroom
- School-Wide
- After School
- Intersession
- Senior
- Capstone
- ELOs
- Internships
- Community Service

Teaming and Collaboration

- Meaningful Integration of Disciplines
- Cohort Groupings / Reduced Student Load
- Teacher and Student Collaboration

STEM and STEAM

- STEM as meta-discipline
- Art and Humanities as Glue
- Design Thinking Process

STEM and STEAM

Science Practices

Next Generation Science Standards

Ask Questions

- What am I observing?
- What does this evidence mean?
- What is the relationship between these variables?
- How can I make my model more accurate?
- What evidence do I need to answer my question?
- What hypothesis can I state based on my observations?
- Is the data used correctly in the argument?

Investigate

- Use the Scientific Method.
- State the goal of the investigation.
- Predict outcomes.
- Plan a course of action that will provide the best evidence to support conclusions.
- Use scientific ideas to show why data can be considered evidence.
- Reduce error in procedures.

Use Math

- Use computers to analyze very large data sets for patterns and trends.
- Use mathematical representations to support scientific conclusions.
- Create algorithms (a series of ordered steps) to solve a problem.
- Use digital laboratory tools to observe, measure, record, and process data.
- Make quantitative predictions.

Communicate

- Be a critical consumer of information about science
- Critically read scientific texts to determine the central ideas and obtain scientific information to describe patterns in evidence.
- Use multiple sources to obtain information used to evaluate the validity of claims and methods.
- Communicate ideas by using tables, diagrams, graphs, models, interactive displays, and equations as well as orally, in writing, and discussion.

Design a Model

- Models include diagrams, physical replicas, mathematical representations, analogies, and computer simulations.
- Models highlight some ideas and simplify others.
- Models are used to help find questions and explanations, to get data to predict, and to communicate ideas.
- Models are based upon evidence. New evidence, changes the model.

Analyze Data

- Construct and interpret graphical displays of data.
- Use computers to tabulate, graphically represent data, visualize, and statistically analyze.
- Use math to represent relationships between variables and identify patterns.
- Take into account sources of error.
- Is one variable the cause (causal), or do both just happen at the same time (correlational)?

Explain

- An explanation includes qualitative or quantitative relationships between variables that predict and describe phenomena.
- Design investigations that generate data to determine explanations to questions.
- Apply scientific reasoning to show why the data or evidence is adequate for the explanation or claim.
- Construct an explanation using models or representations.

Argue

- Argue when investigating a phenomenon, resolving questions about measurements, building data models, and using evidence to evaluate claims.
- Arguing happens when listening, comparing, and evaluating competing ideas and methods.
- Respectfully provide and receive critiques about one's explanations, procedures, models, and questions by citing relevant evidence and posing and responding to questions.

Stacey Reed 2013

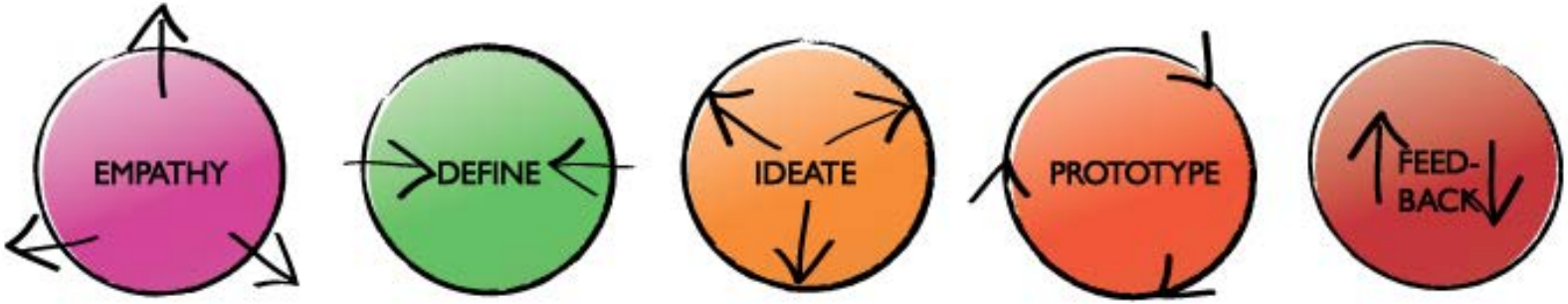
Ipswich STEAM Integration

Teaching	
Strengths	**Needs**
• Many teachers recognize that it is necessary to explore new, more engaging, and more rigorous instructional practices to help students become successful on the test and in learning beyond the test. • Some staff recognizes that the present strategies often were not meeting the ways that students learned. • There are examples of excellent teaching practices throughout IPS that could be shared and brought to scale. • Teachers utilize their local habitats for accessible and meaningful hands-on learning opportunities. • There is a healthy collaborative work environment in the schools. • IPS teachers are motivated to learn and grow and have a history of strong curriculum development. • There is a desire for increased professional collaboration. • Teachers have good relationships with students.	• Incorporate STEAM learning strategies and projects that are more rigorous, relevant, and aligned to the NGSS. • Increase the rigor associated with high-level questioning techniques and academic discussions around STEAM. • Increase relevance in student learning through authentic resources from STEAM careers and learning connections between tasks and real-world scenarios. • Increase professional learning to support the inclusion of engineering design practices, formative assessment processes, content integration, and project-based learning methods. • Leverage team-planning time to discuss and share innovative STEAM teaching strategies, projects, and authentic assessments.

Design/Engineering Thinking

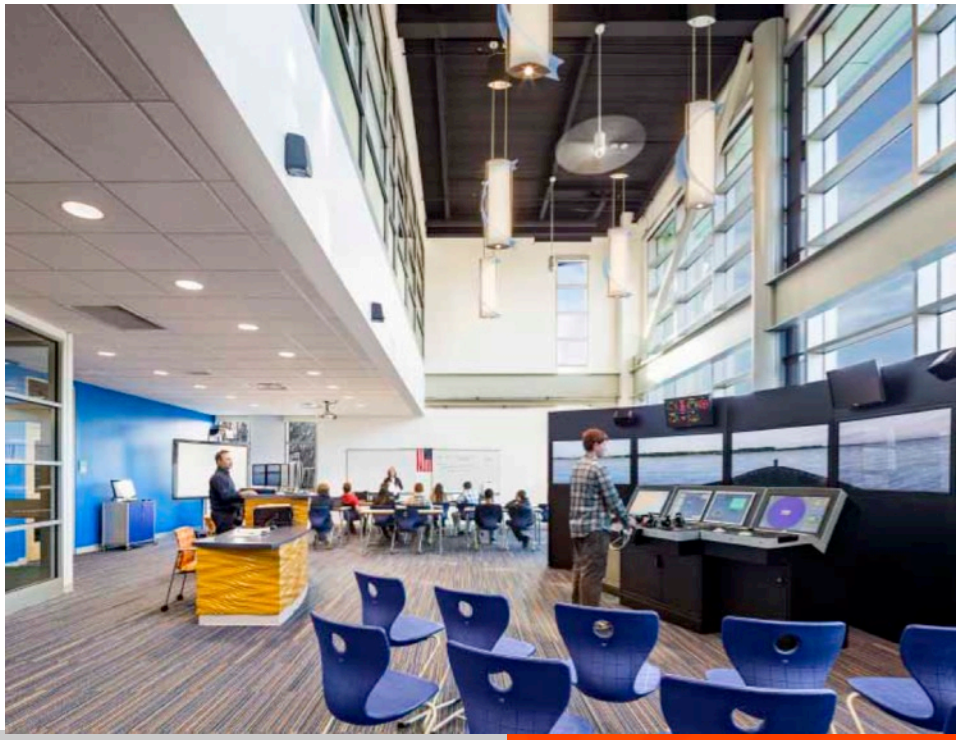
- Dewey / Head and Hand Integration
- Academic / CTE Integration
- Maker Movement

Design Thinking



Career Tech Education

- Vocational/Academic Integration
- Broad based transferable skills building
- Career Pathways



Internships and Field Studies

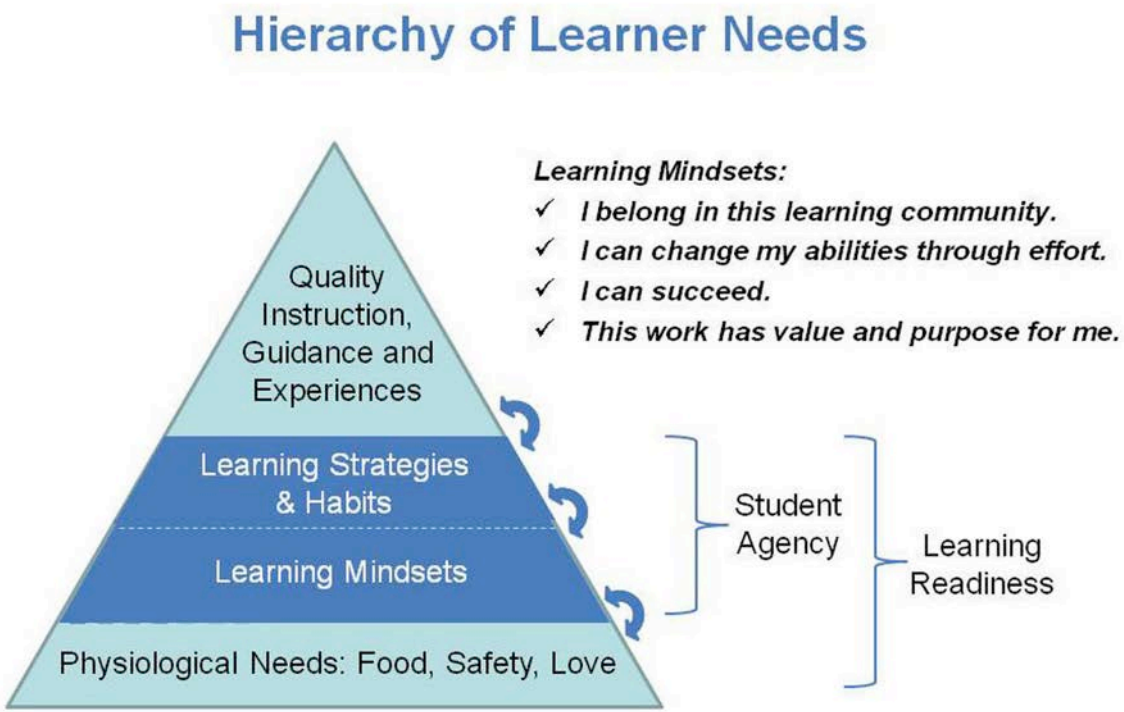
- Adult world connections and mentoring
- Authentic projects and contexts for learning
- Writing and reflection

Deeper Learning

- **Mastery of Core Academic Content**
- **Critical Thinking and Problem Solving**
- **Collaboration**
- **Effective Communication**
- **Self-Directed Learning**
- **An "Academic/Growth Mindset"**

THE WILLIAM AND FLORA HEWLETT FOUNDATION

Academic/Growth Mindset



... Grit, perseverance and a passion for long term goals...

Community Partnerships

- Permeable School Walls
- Adult-World Connections / Internships
- Leveraged Resources

Global Learning

- International Collaborations
- Sister Classrooms
- Travel Studies

Learning from Best Practices

- Forward-thinking programs and facilities
- Key spaces and important adjacencies
- Lessons learned

EXPEDITIONARY LEARNING

edutopia

Project-
Based Learning

... the ONLY way to teach 21st century and independent learning skills

The 6 A's of Powerful Projects

- Academic Rigor
- Authenticity
- Applied Learning
- Active Exploration
- Adult Connections
- Assessment Practices

Media Saves the Beach

Media Saves the Beach

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21st Century Skills

Activity

What 21st Century Skills Are Most Important to Your School and District?

Bloom's Taxonomy

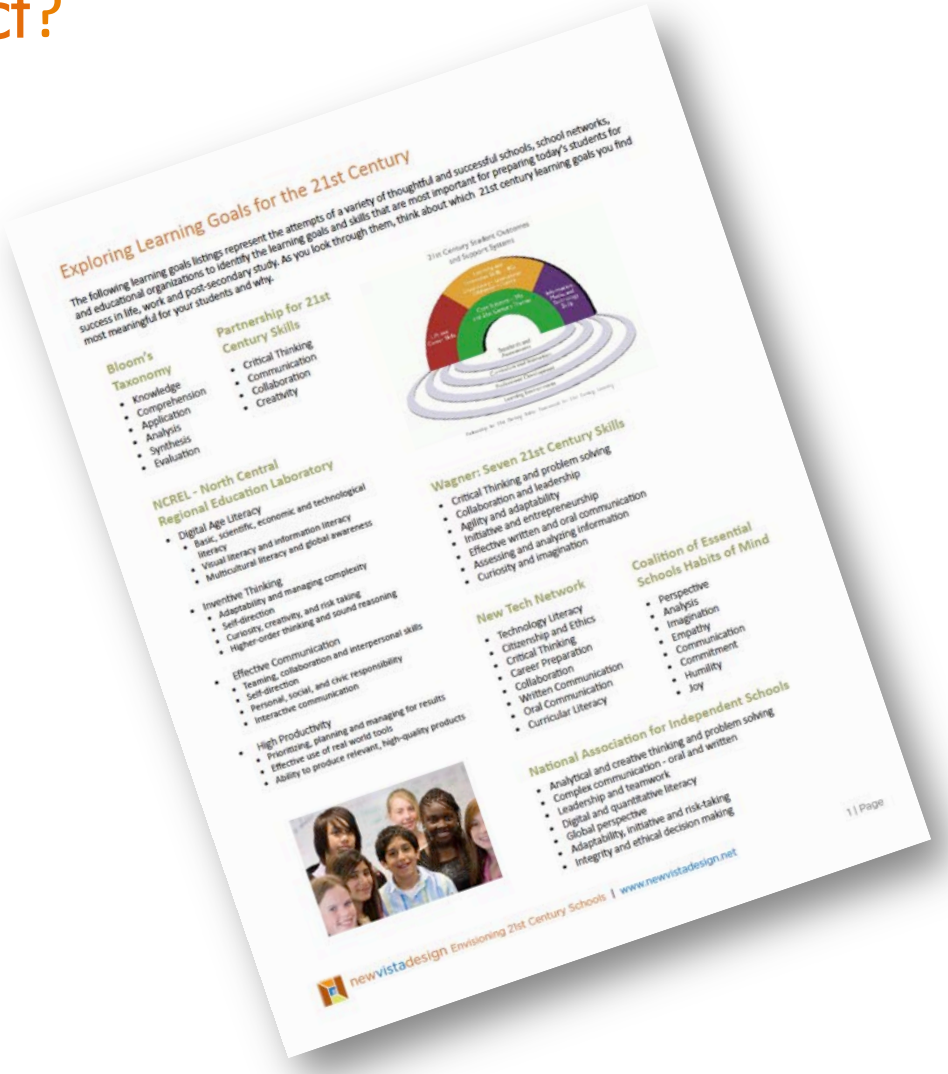
- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Partnership for 21st Century Skills

- Critical Thinking
- Communication
- Collaboration
- Creativity

NCREL - North Central Regional Education Laboratory

- Digital Age Literacy
  - Basic, scientific, economic and technological literacy
  - Visual literacy and information literacy
  - Multicultural literacy and global awareness


Exploring Learning Goals for the 21st Century

The following learning goals listings represent the attempts of a variety of thoughtful and successful schools, school networks, and educational organizations to identify the learning goals and skills that are most important for preparing today's students for success in life, work and post-secondary study. As you look through them, think about which 21st century learning goals you find most meaningful for your students and why.

Bloom's Taxonomy
- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Partnership for 21st Century Skills
- Critical Thinking
- Communication
- Collaboration
- Creativity

NCREL - North Central Regional Education Laboratory
- Digital Age Literacy
  - Basic, scientific, economic and technological literacy
  - Visual literacy and information literacy
  - Multicultural literacy and global awareness
- Inventive Thinking
  - Adaptability and managing complexity
  - Self-direction
  - Curiosity, creativity, and risk taking
  - Higher-order thinking and sound reasoning
- Effective Communication
  - Teaming, collaboration and interpersonal skills
  - Self-direction
  - Personal, social, and civic responsibility
  - Interactive communication
- High Productivity
  - Prioritizing, planning and managing for results
  - Effective use of real world tools
  - Ability to produce relevant, high-quality products

Wagner: Seven 21st Century Skills
- Critical Thinking and problem solving
- Collaboration and leadership
- Agility and adaptability
- Initiative and entrepreneurship
- Effective written and oral communication
- Assessing and analyzing information
- Curiosity and imagination

New Tech Network
- Technology Literacy
- Citizenship and Ethics
- Critical Thinking
- Career Preparation
- Collaboration
- Written Communication
- Oral Communication
- Curricular Literacy

Coalition of Essential Schools Habits of Mind
- Perspective
- Analysis
- Imagination
- Empathy
- Communication
- Commitment
- Humility
- Joy

National Association for Independent Schools
- Analytical and creative thinking and problem solving
- Complex communication - oral and written
- Leadership and teamwork
- Digital and quantitative literacy
- Global perspective
- Adaptability, initiative and risk-taking
- Integrity and ethical decision making

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Which 21st Century Skills and Habits of Mind do you see as most important?