

Preparing Students for the Future of Sustainability by Actually *Teaching* Them about the Future of Sustainability



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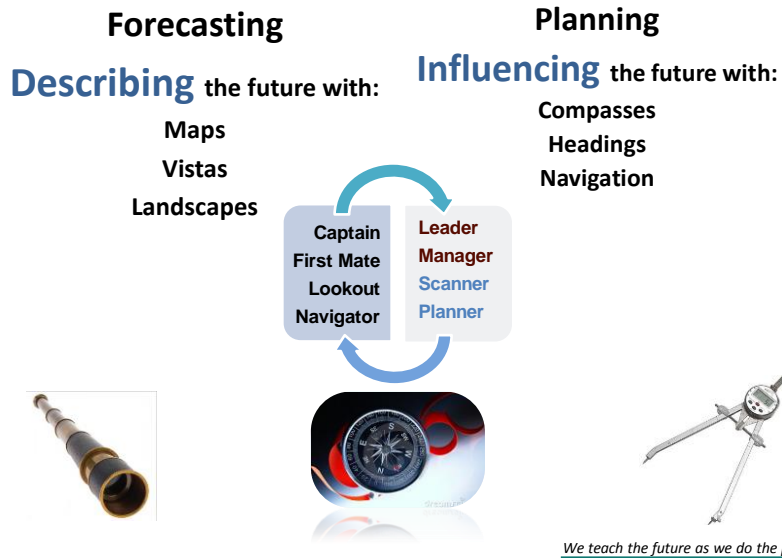


Mission and Benefits of Teach the Future

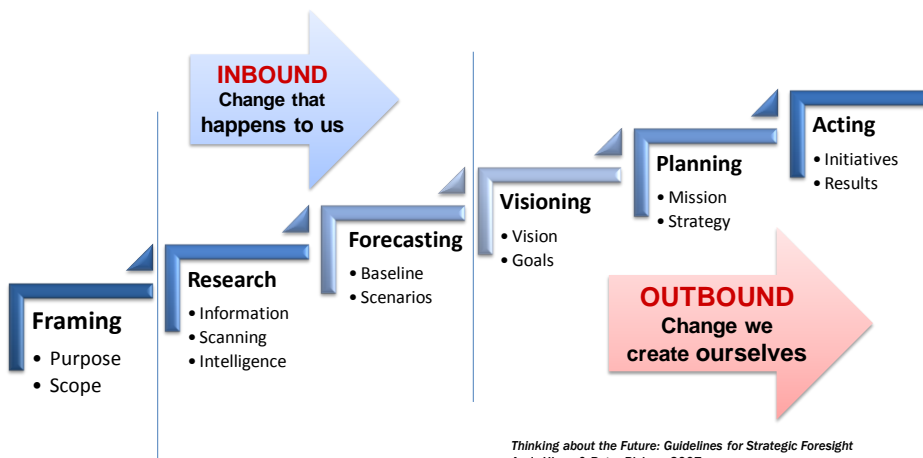
Teach the Future encourages and supports teachers and administrators to include the future in their classes and schools in order to achieve the following benefits –

- **Engage** students in interesting and exciting projects that motivate them to learn
- **Prepare** students to be successful in a career and in life, specifically how to deal with the increasing rate and complexity of change.
- Teach **higher order thinking** skills, such as research, analysis, creativity, critical thinking, evaluation, synthesis and communication.
- **Differentiate** instruction by providing the better students with open-ended projects that they can do largely on their own.
- **Empower** students to envision a preferred future and work, as they can, to work to bring about within their sphere of influence.
- Be a part of an **innovative, educational movement** while working with other interesting and creative educators.

Strategic Foresight



Foresight Techniques



We teach the future as we do the past.

Benefits of Foresight

Activity	Benefits
FRAMING (22%)	1. Thinking more diverse open, balanced and non-biased (9%) 2. Focusing on the right questions and problems more clearly (7%) 3. Being aware of, and influencing, assumptions and mental models (6%)
SCANNING (16%)	4. Understanding the context, in all its complexity, through establishing frameworks (5%) 5. Anticipating change and avoiding surprise (10%)
FORECASTING (22%)	6. Producing more creative, broader, and deeper insights (16%) 7. Identifying a wider range of opportunities and options (5%)
VISIONING (10%)	8. Prioritizing and making better and more robust decisions (10%)
PLANNING (7%)	9. Constructing pathways from the present to the future that enable rehearsing for the future (7%)
ACTING (23%)	10. Catalyzing action and change (7%) 11. Building alignment, commitment and confidence (14%) 12. Building a learning organization (2%)

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Three objections

1. The future is unpredictable so we cannot we know, much less teach, something that has not happened.
2. We do not have time to teach the future because it is not required by any organization or curriculum standard, including AP and IB.
3. We were not taught the future so we do not know how to teach it.

We teach the future as we do the past.

1. The future is unpredictable!

- | | |
|---------------|------------------------------------|
| ❑ Airlines | ❑ The energy crisis |
| ❑ Automobiles | ❑ The PC |
| ❑ Film | ❑ The collapse of the Soviet Union |
| ❑ Health care | ❑ The invasion of Kuwait |
| ❑ Military | ❑ The World Wide Web |
| ❑ Music | ❑ Y2K |
| ❑ Newspapers | ❑ The Tech Bubble |
| ❑ Publishing | ❑ 9-11 |
| ❑ Retail | ❑ The Great Recession |
| ❑ Telephones | ❑ The rise of ISIS |
| ❑ Television | |



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The Actual Future

Which one is correct? Why not use all three?

– The Expected Future

- Where we are headed
- The future if everything continues as it has
- The result of conditions and trends (momentum)

– The Alternative Futures

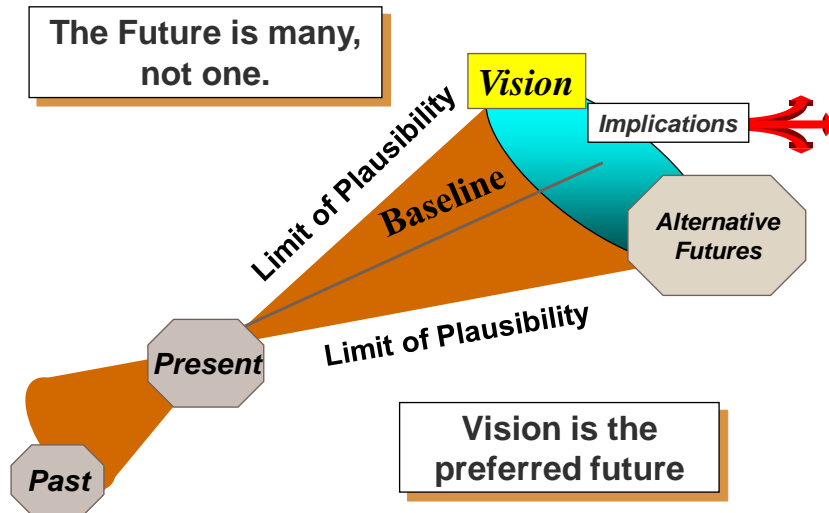
- What might happen instead
- The set of plausible futures if something less likely or unexpected happens
- The result of events and issues (contingencies)

– The Preferred Future(s)

- What we want to happen
- Either the expected or any of the alternative futures that is preferable
- The result of our vision, goals, plans and actions (agency)

We teach the future as we do the past.

The Cone of Plausibility



Source: Charles Taylor, Army War College

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Foresight in the Classroom

Simple questions

What is happening today? – Present

What happened to make it that way? – Past

What do you expect to happen? – Expected future

What might happen instead? – Alternative futures

What do you want to happen? – Preferred future(s)

What can you do to make it happen? – Goals, Strategies

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2. We were not taught, but...

- *Teaching about the Future*, Bishop & Hines
- *Anticipate the School You Want*, Shostak
- World Futures Society -- Annual Conference
- *Global Foresight Books, Shaping Tomorrow*
- Organizations -- Future Problem Solving, Global Issues Network, International Futures Forum, Future Friendly Schools, Facing the Future, Foresight Education
- Teaching materials in *Tomorrow's Learning Library*
- In-service, professional development
- Ultimately pre-service education in foresight!

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3. We do not have the time, but...

The future does not take any more time than anything else!

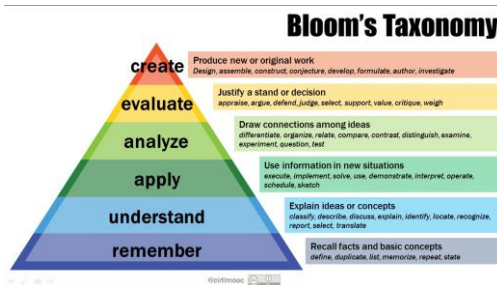
- **History** – flow, change over time, time series, patterns, uncertainties, contingencies, alternative histories, historical images of the future, historical analogy
- **Literature**, language –future tense, subjunctive mood, science fiction, the three questions for fictional conditions and characters
- **Mathematics** – time series, extrapolation, probability, preference ranking, criteria weighting
- **Physical science** – time series, extrapolation, technological applications, social consequences, public issues
- **Social science** – social change, time series, cultural concepts of time, national and global awareness

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Using the Future to Teach...

Analysis
 Research
 Inferential reasoning
 Critical thinking
 Creativity

Value clarification
 Innovation
 Leadership
 Planning
 Change management
 Evaluation



Project scoping
 Teamwork
 Synthesis
 Writing
 Presentation

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What we have done already

- **Teacher in-services** for school districts in Houston and for American schools around the world
- **Certificate courses** for professionals in Houston and Brussels each year, some of whom are teachers.
- **Articles** about teaching the future.
- **Teaching about the Future** that describes the curriculum at the University of Houston.
- A **high school course** on the Future of Houston.
- A non-profit **corporation**, a new **website** and a successful crowd **funding** campaign
- Presentation at Am Historical Assoc and articles in *InsideHigherEducation.com* and *History News Network*
- [Tomorrow's Learning Library](#), curriculum materials on the web free of charge.

We teach the future as we do the past.



**Our Vision:
We teach the future
as we do the past.**

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