CREATE2THINK™
PLANNING GUIDE

EQUITABLE EDUCATION SOLUTIONS
PROMOTING LEARNING FOR ALL STUDENTS

CREATE2THINK

Our process for STEM instruction is built on evidence-based practices aligned to how we support schools to improve their results dramatically. If teachers CREATE optimal inquiry-based learning opportunities, then students will successfully THINK!

TEACHER PROCESS

Capture their interest

Release control to explore

Engage through inquiry

Act on student responses

Targeted feedback through assessment

Empower critical thinkers through redesign

STUDENT PROCESS

Once teachers have facilitated inquiry-based learning using the CREATE model, we know students will have an environment conducive to THINK.

Tackle the problem

Hunt for information

Interpret & synthesize others' views

Navigating new ideas

Keep refining & sharing

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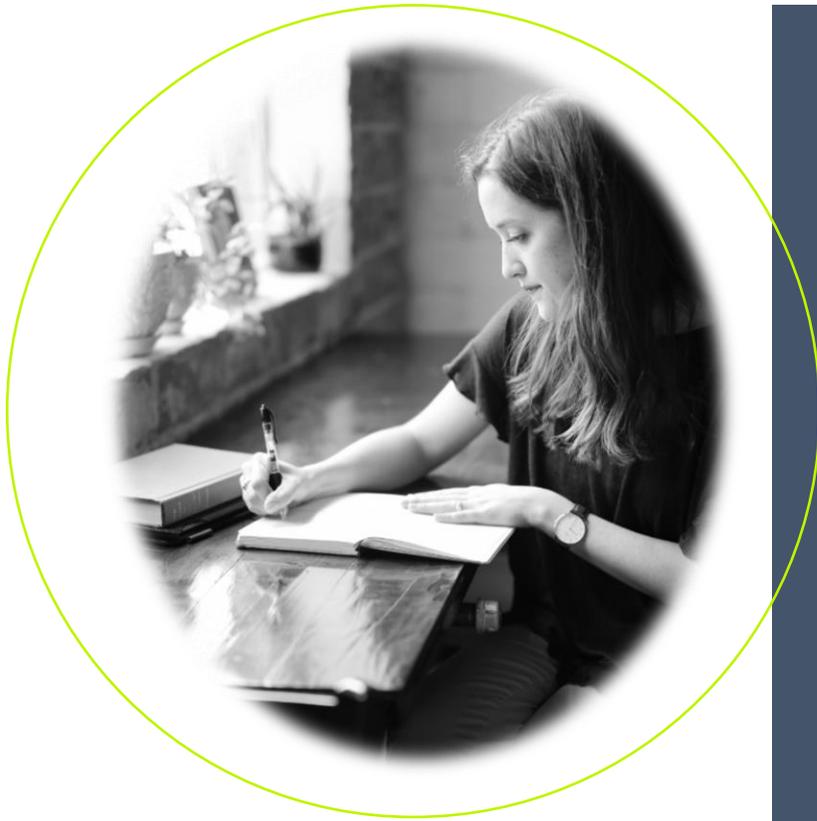
A PROCESS FOR TEACHERS

To better help you understand our model, we are laying out the purpose of each stage within the CREATE process. Whether you are planning or delivering a lesson, we know the elements we have developed will help you answer the following core questions:

- ✓ **Do I know where students are in their learning?**
- ✓ **Am I responding to student needs and inspiring inquiry and innovation?**
- ✓ **Are students thinking and collaborating?**

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CREATE DEFINED

1. Capturing interest is about an exciting hook to engage students while establishing a problem that is relevant to students.

2. Releasing control allows for students to stay engaged in learning long after your hook. Students are in complete exploratory mode without micromanagement.

3. Engaging students through inquiry relies on you actively asking questions – not providing answers. When you formulate questions properly, you will set students up to decide where they want to go next in their learning.

4. Acting on student responses is having the ability to adjust your instruction to meet student needs. Small group or whole group – it is essential to the growth of *all* students.

5. Targeting feedback through assessment provides you with for how to facilitate learning. This happens continuously throughout the unit and daily lessons.

6. Empowering critical thinkers through redesign will provide a safe environment for students to reflect on feedback, track their own growth, and refine their process.

THINK DEFINED

1. Tackling the problem embeds core skills associated with resilience and grit, teaching students to run *towards* a challenge, unpacking what must be accomplished first in a problem to create a solution.

  ➢ *Why does this problem matter to others?*
  ➢ *Why does this problem matter to me?*

2. Hunting for information supports students collaborating with others and investigating multiple sources to find possible solutions to a problem and/or response to a question.

3. Interpreting and synthesizing requires students to listen, interpret, analyze and synthesize information from peers and additional sources to apply to their problem they are solving.

  ➢ *Which ideas have the most credibility and why?*
  ➢ *Are the ideas fact or opinion?*

4. Navigating new ideas encourages students to begin forming a defined solution to the problem and develop a new perspective.

5. Keep refining and sharing involves students giving and receiving feedback to continue improving while collaborating with others.

UNDERSTANDING THINK

A PROCESS FOR STUDENTS

The stages within the THINK process for students are designed to embed noncognitive dispositions like grit, resilience, self-awareness, reflection, teamwork, and metacognition while addressing 21st Century Learning Skills. Similar to the process for CREATE, students should be able to answer the following core questions:

  ✓ **Do I know where I am in my learning?**
  ✓ **Am I asking questions and adjusting when my teacher helps me?**
  ✓ **Am I thinking and collaborating with others?**

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CREATE2THINK
UNIT DESIGN

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- ✓ Unit theme
- ✓ Enduring Understandings
- ✓ Essential Questions
- ✓ Critical Vocabulary
- ✓ Standards:
    - o Science
    - o Math
    - o ELA
    - o Computer Science
    - o Science & Engineering Process
    - o Employability Skills
- ✓ Use of THINK Journals

Our units include core components that are designed to be both comprehensive and inclusive. Though our process is perfect for STEM and inquiry-based collaborative learning, you'll find that the process is perfect for *any* type of unit or lesson planning.

Our core elements are listed to the left. After planning your unit, our accompanying daily lesson plan template and 1-page unit reflection will help guide your planning sessions and make adjustments accordingly, while celebrating the success of your students.

Most importantly, we want your planning process to be innovative and streamlined, resulting in optimal inquiry-based learning opportunities for *all* students.

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PLANNING WITH THE **CREATE2THINK™** TEMPLATE

Our process is designed to help you backwards plan your unit for optimal success. There are three stages to implementing your CREATE2THINK unit:

- ✓ Build your unit using the CREATE2THINK Unit Planning template.
    - o This includes the elements listed on p. 5
- ✓ Build your daily plans for the unit using our CREATE2THINK Weekly Roadmap template.
    - o This will help you plan an inquiry question for the day, as well as plan how students will record their thoughts, questions and results (data) along with each step of CREATE (our thinking routines).
- ✓ Use the THINK Journals for your grade cluster (K-2, 3-5, or 6-8)
    - o We find this to be one of the most powerful components to the CREATE2THINK process for facilitating student learning, while developing an environment which creates optimal inquiry-based learning experiences for your students.

CREATE2THINK™ Unit Planning Template

Grade & PBL Unit Theme (should align with Science Content Standards)

6th Grade: Evaluate competing design solutions using a systematic process to identify how well they meet the criteria and constraints of the problem.

Summary: During this unit, students will use project-based learning to discover why the Tacoma Narrows Bridge collapsed after only months of being open. Students will engage with a video of the collapse, then move onto developing their own hypothesis and testing models. Students will then explore the engineering design process to construct a model bridge that can support weight. During this exploration they will research concepts of bridge building, forces, gravity, and material science. Students will propose their bridge design, constructing their bridge, and testing the capacity of the bridge. At the end of the project, students will perform a post-project summary of their learning.

Enduring Understanding(s)
- Engineering design process is a sound method of problem solving.
- There is no one way to solve a problem
- Solutions have advantages and disadvantages, determining the best solutions depends on the problem criteria.
- Arguing for a solution requires evidence and data.

Essential Question(s)
- What is the engineering design process?
- Why do engineers follow the design process when solving problems?
- Why is it important for engineers to clearly document & communicate their work?
- What constitutes evidence and how is it best used to bolster an argument?
- What is the best way to make your argument in order for your prototype to be selected?

THINK JOURNALS 101

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- ✓ Can be used daily throughout a unit.
- ✓ Develops deeper thinking and analysis as they experience the THINK process.
- ✓ Provides a structure for students to give and receive feedback, self-reflect and record their research, questions, learning all while developing a portfolio to accompany a project-based learning unit.
- ✓ Help you as the teacher enact the CREATE process.
- ✓ Personalizes the learning experience for each student.

Tackle the problem.
- Why does this problem matter to me and others?
- What is this problem asking me to discover?

Hunt for information.
- What questions am I answering?
- Where can I look for answers?

Interpret & synthesize others' views.
- What ideas have I seen show up in multiple sources?
- Are the ideas fact or opinion?

Navigate new ideas.
- How will I test the idea I like best?
- Is there a way I can prove my idea is a solution to the problem?

Keep refining & sharing.
- How can I make my solution even better?
- Who are the best people who can give me feedback?

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