Physics of Organizing™: a Teacher and Student Centered Learning Skills Program

Applying MCAS standards in engineering, technology and design…
to engage VOCATIONAL TECHNICAL teachers and students in the fundamentals of organizing

Empower all teachers and students to learn the fundamentals of organizing with the innovative, relevant, fun and productive "Organizing Engineer™" tools and curriculum from Productive Education LLC.

The **Physics of Organizing (PO)** will help you bring the big ideas of organizing literacy into the classroom in ANY subject, at ANY time of the year. The Physics of Organizing is the best way to introduce and reinforce technology, design, and engineering methods using a collaborative, project based experience. Empower new learning by embedding this program in study skills or academic study block and reinforce in every classroom!

PO hands-on activities and projects engage your students in building a thinking machine that will excite them and spur them to explore and deepen their understanding of cognitive science. Participants will discover the principles underlying filing and organizing and see the bridge from paper to computer. They will experience a simple epiphany that will allow them to make a cognitive shift as they discover what it means to be self-organizing. Each student will become more self-directed as they own and manage their dynamic work portfolio.

PE LLC's systems based approach teaches organizing by employing a clever mechanical machine that embodies the computer as metaphor, along with a sequence of insightful videos that ensures each participant will gain a fundamental understanding of organizing. Experiencing what it means to be an "organizing engineer" instills a desire to become a programmer of one's own learning model. Participants learn underlying ideas of intelligence while they explore the physics, laws, models, and processes using a simple machine. The best part of this is that the "make and take" tool is a document handler that can be used day to day and throughout the year to get and stay organized. Watch classroom operating efficiency and student outcomes soar.

Example: in the one time, two hour intervention experience the project based edition of PO:
(1) as an entry level "project workshop" for any 9th -12th graders-do it right out of the box/self-taught
(2) as a way to build a lab notebook and organizer for any class in which experimental work is conducted
(3) as part of Exploratory in an introductory, skill "leveling" one session class to incoming 9th grade students
(4) at any time of the term as an enrichment class in cognition and executive function for grades 9-12
(5) as an entry level class in FIRST robotics to build collaboration skills and introduce the D-E process
(6) as a first class of any engineering course designed for students heading into STEM careers
(7) as a first "CS(0)" class in any CS(1) or CS(2) computer course for students learning computer fluency

PO can also be taught
(1) as a two class project in filing and organizing
(2) as the first period of a quarter long project in Organize360™, a complete inventive learning module
(3) as a quarter long fundamentals course in Design-Engineering principles for students
(4) as a two period TEACH the TEACHER module in Design-Engineering principles for ALL teachers

Or, work with us and we will help you to
(1) taylor this class to your innovative curricula as a strategic learning module

Whether your program uses the 1 subject DocOA™ Organizing Assistant™ or the 6 Subject DocOA™, your students and teachers will walk away with a tool that is both relevant and useful for the rest of the term! The skills learned here are 21st Century, life long learning skills that will serve each user in a unique and powerful way and contribute to improved educational outcomes.

Go full circle and become a Self-Organizing Engineer

With the Physics of Organizing, teachers and students self-instruct in organizing literacy as they experience a hands on manufacturing and assembly task, an integral workbook experience, and interaction with a computer based digital simulator and symbolic game. The student and teacher are engaged in a collaborative, inquiry based, tool driven experience where each participant develops a personal understanding of executive function, its role in critical thinking as it relates to filing and organizing, as well as develops a fundamental notion of the programming process and how that enables self-directed methods of learning how to learn. Parents are involved as the "end customer" in step 7 and 8 of the engineering design loop, the instructional design model used that teaches to the MCAS standards.

The Physics of Organizing will help participants to:
(1) develop the discipline to manage their own work portfolio, either subject curriculum or academic papers
(2) understand how engineers think & work by becoming self-organizing engineer in this critical application
(3) explore the physics of organizing as the basis for understanding Science, Math, and Dynamic Systems
(4) build an initial foundation in cognitive science, meta cognition and learning how to learn
(5) learn difficult to grasp concepts such as the notion of "technology" and the meaning and power of metaphor
(6) develop self-reliance, collaborative team skills, presentation, leadership skills, and mentoring skills

Instructional materials depend on your choice of program and may include:
(1) Teacher Planner-this guide offers practical leadership skills in this key application
(2) Physics of Organizing-a workbook with a step-by-step plan to self-organizing behavior
(3) Digital Training Simulator-on-line instruction for student, parent, and teacher
(4) Video Game-symbolic interactive game that challenges users and reinforces the underlying models
(5) DocOA™ Organizing Assistant™ - a 1, 5 or 6 subject kit that is manufactured and tested
(6) Growing Smarter: A crash course on the intelligence of organizing authored by David Schwartz
(7) A perpetual license, which includes download rights and a low cost refill program

Learn more at www.bookwindows.com or contact us at 508-370-0228 for your proposal kit
(1) watch videos of students and teachers at work
(2) download white papers on the critical application of becoming self-organizing
(3) request a quotation, pilot program materials, and a schedule for implementation
(4) review course outlines and get access to curriculum downloads and a perpetual license

EXAMPLE: a one period PO class includes all the basics of the Design-Engineering process:
Step 1- Define Problem: "getting and staying organized"
Step 2- Do Research: check list of what you have done before
Step 3- Choose Technology/Solution: how does "technology" change what you build
Step 4- Build Prototype: construct a thinking machine in less than 10 minutes
Step 5- Test & select: verify the operation of the machine in real time
Step 6- Trial & communicate: share point of view peer to peer and with teachers
Step 7- Integrate feedback: make decisions about core value and message
Step 8- Package, Assemble, Sell, Ship: select packaging and take it home-present to peer or parent

This is the only program of it's kind in the country that offers a simple "grammar for organizing" that everyone **->student, teacher, and parent<-** can all agree on. When one student uses the system it works for that student. For a school, especially an entire grade, improved outcomes are multiplied. Call us to find out how you can implement PO at your school. We offer a cost effective teach the teacher program using a state of the art web based platform where any teacher anywhere in the country can become a resident expert. This is backed up with a just in time drop ship program that ensures you have exactly the right product for your program, in your grade, at your school. *We look forward to helping help your teachers/ students become self- organizing engineers as they learn how to design, manage, change, and adapt their own organizing and learning strategies.*

Organize360™ for Teacher/Student
REV 3.0 PDP Mirror Intervention*

Pre-Exploratory "Load Leveling" Organizing Literacy Tuneup
3 hr Teach/Teacher(performed by PE LLC/on-site)-1 session workshop
3 hr Teach Student(performed by teachers or optionally by PE LLC)-
(can be implemented in one modified class period, 2 classes, or in 3 Class periods)

Summary: Organizing skills are critical to leadership development. It is essential for teachers to showcase organizing skills across all programs and shops by dynamically delivering the curriculum in a relevant and timely fashion. Teachers must demonstrate effective organizing skills in order to achieve optimal results for their students. It is equally essential for students to showcase organizing skills in each exploratory career area. Performance in exploratory is critical to student placement goals and actual matching outcomes. Scoring on exploratory performance often involves demonstrated interest in the career, responsibility for work including timely delivery and work quality, interaction with both teachers and peers around the content and outcomes, problem solving methods and demonstrated problem solving abilities, and academic comprehension with demonstrated understanding of the meaning of technology and the use of measuring tools, the concept of related math including fractions, and comprehension of related text materials. These skill areas can often represent well over 60% of the performance assessment for the student. Organizing skills are critical to improved skills in all of these areas.

What Organize360 Embodies: Organize360 is a collaborative project based workshop in which a set of tools for organizing is the "make and take" for the training. The instruction is designed to map directly into the 8 step engineering and design method where problem definition, ability to do research, understanding of technology, demonstration through relevant prototyping, testing and selecting from various alternative choices, trial and error in use, solicitation of feedback and the integration of that feedback into meaningful communication and effective change, along with the ability to adequately articulate and demonstrate the benefits of a solution including packaging a message and selling and shipping the deliverables.

Organize360 intends to foster these learning skills as well as enable functional and application specific skills in 3-D animation and gaming, advertising design and graphic arts, mechanical and technical drafting, computer programming, customer service, the challenge of engineering solutions from the sum of a series of parts, entrepreneurship and innovation, office filing and organizing, the principles of technology, related technical mathematics, automation and robotics technology, team work including manufacturing processes and assembly, technical preparation for showcasing work, total quality management, and web use.

Through the intervention and tool building experience and use, it is the objective of Organize360 to enable students in any exploratory program to better select the correct strategic career direction and to preselect more readily for careers in technology, science/math, business management and power clerical and administrative careers.

How this program works in 3 hour sections: This engineering and design workshop is a 3 hour workshop for teacher and for student. PE LLC will perform the Teacher 3 hour workshop on site. The teachers will implement the 3-hour student workshops in-line with exploratory. Optionally PE LLC can perform or assist with the student implementation. The 3-hour workshop includes specific guided lessons in:

1. Problem identification and representation
2. Performance of basic research into the problem domain
   Including forming understanding of what bills of materials are for and how programming is integral to machine design and operation
3. Technology –what is it and how does it influence the solution including set theory, models for filing and organizing that bridge from paper to computer
4. Prototyping including die stamping, folding and gluing, material selection in converted paper and plastic, adhesives and their application, categorization and programming of scripted or procedural behaviors and computer organization and design
5. Testing and selecting including measuring performance by weight and timed behaviors using relevant graphing and ratios
6. Integrating feedback including totally quality operation and management, customer service, incremental change and innovation
7. Messaging, packaging, selling and presenting including debating ones choice and the final election of a preferred embodiment
8. Assembly in mass production, distribution and shipping with issues related to field operations and customer service

Means of delivery: Organize360 includes the construction of a relevant make and take object which in and of itself functions as a dynamic portfolio handler for all academic documents and events. The sequence of curriculum elements are delivered in a simple step by step framework using proven instructional design where the objective of the step in the learning model is stated, the step is sequenced in accordance with the instructional flow, and the operations and outcomes are simply presented and demonstrated enabling all teachers in all subject areas to actively learn, intelligently deliver and reinforce, and for all students to experience a leveling tune up in practical skills as listed above. A sample workbook page with step by step numbering of the 8 Step Design Engineering framework follows. Note, student and teacher interventions are fundamentally the same with respect to the make and take object. The categorization and program script differs as does the reinforcement elements for each group.
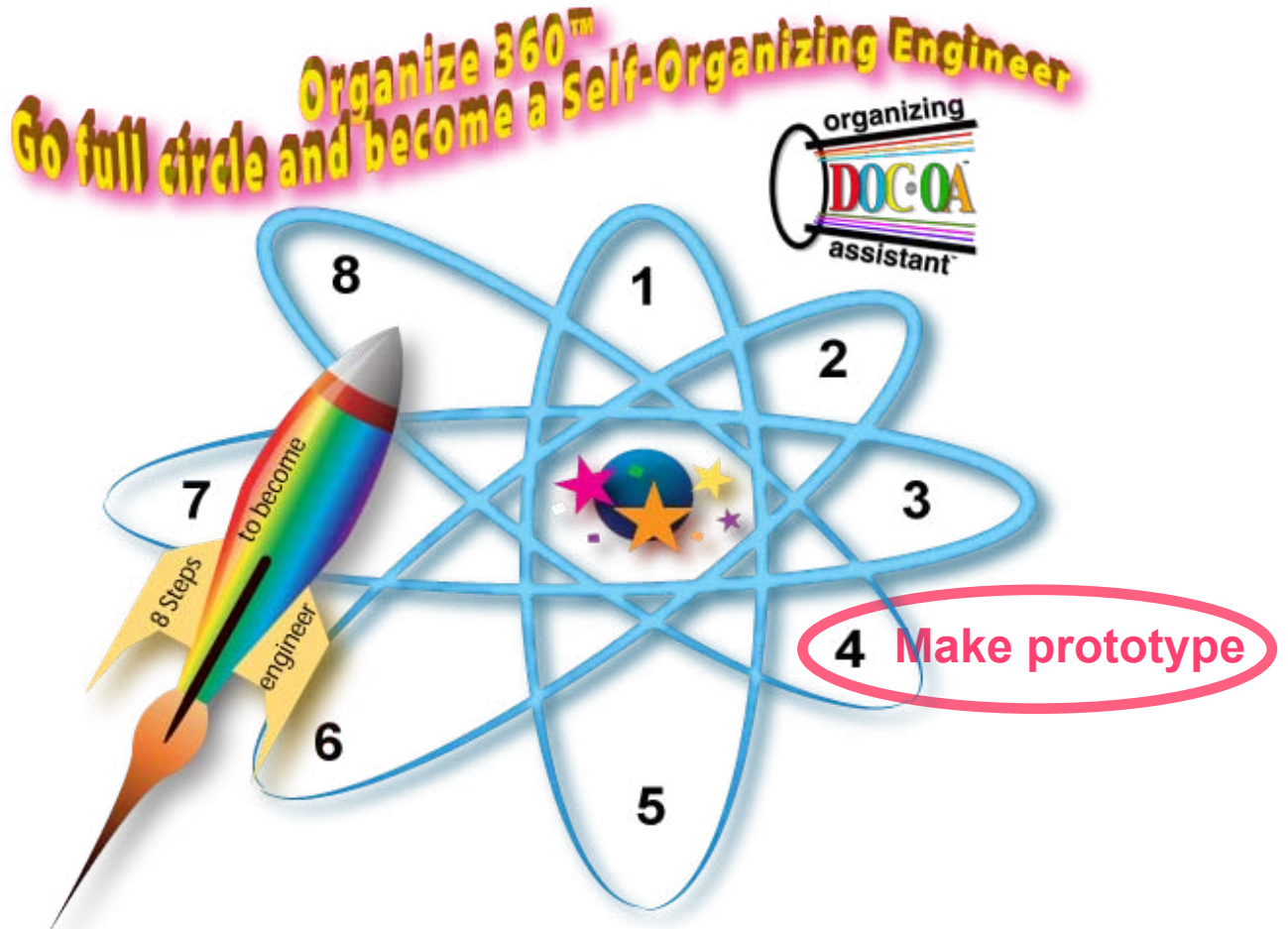
* the core teacher and student interventions are identical with the exception of how the DocOA "thinking machine" is labeled by category and the script used to test the functional performance of the thinking machine.

Go full circle and become a Self-Organizing Engineer
Organize 360™

organizing
DOC•OA
assistant

8

1

2

7

3

8 Steps to become

engineer

4 **Make prototype**

6

5

Student/Teacher WorkBook

Step 4-Make "Thinking Machine" Prototype

Following these instructions:(flip over)
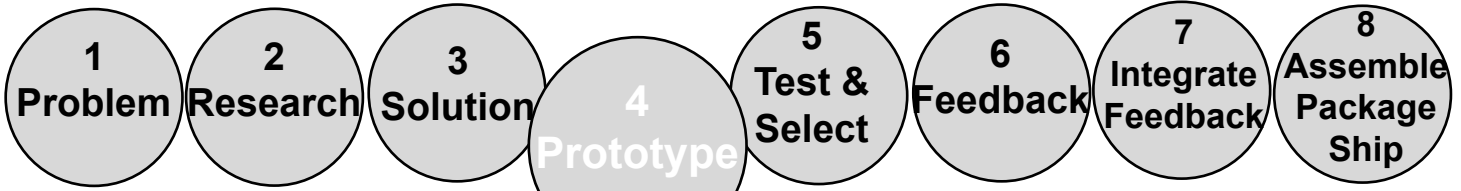- 8 Step Design-Engineering Framework
- Assembly Instructions

DO: Step 4a **Build** using:	DO: Step 4b **Program** using:
- 2 Covers - 1 Pencil Case - 3 Rings - Pocket Group & Tri-File	- Name/Trade Secrets Sheet - Preprinted Sticker sheet - Homework by Subject Form - Cornell Notebook

8 Step Design-Engineering Framework
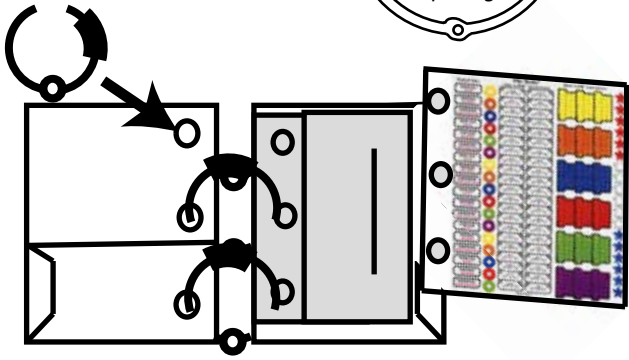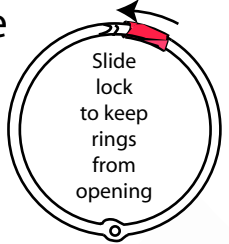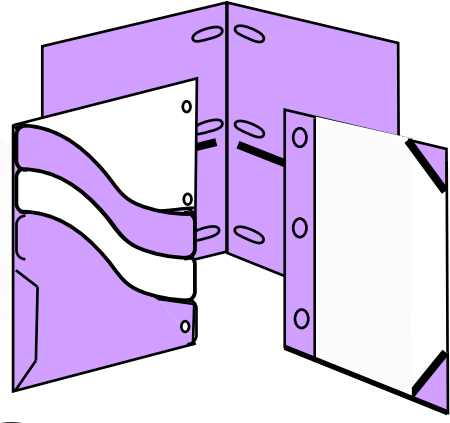
1 Problem | **2 Research** | **3 Solution** | **4 Prototype** | **5 Test & Select** | **6 Feedback** | **7 Integrate Feedback** | **8 Assemble Package Ship**

Step 4A Build thinking machine

Assembly Instructions:

A.1-First: assemble covers---rings pencil bag sticker sheet

Slide lock to keep rings from opening

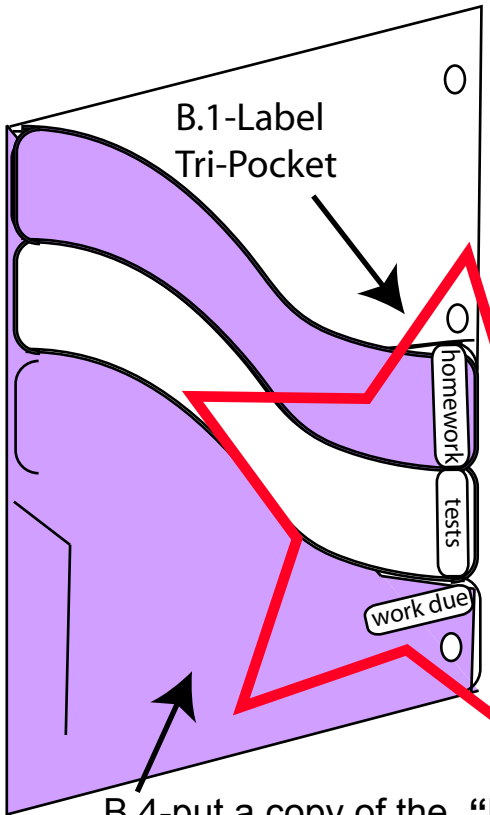**A.2-Then:** add pocket group behind stickers

A.3-the tri-file is also part of your machine ...teachers label this for your kits...students use this pocket for archiving
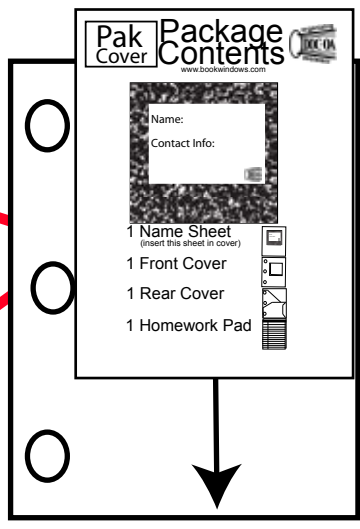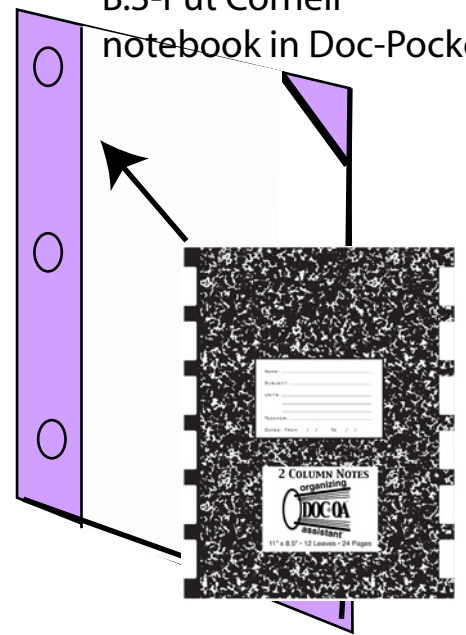
Step 4B Program thinking machine

B.1-Label Tri-Pocket

homework

tests

work due

B.2-Insert name sheet

Pak Cover | Package Contents | DOC-OA
www.bookwindows.com

Name:

Contact Info:

1 Name Sheet
(insert this sheet in cover)

1 Front Cover

1 Rear Cover

1 Homework Pad

B.3-Put Cornell notebook in Doc-Pocket

2 COLUMN NOTES
organizing
DOC-OA
Assistant
11" x 8.5" • 12 Leaves • 24 Pages

B.4-put a copy of the "Homework by Subject" form in the work due pocket

patent pending