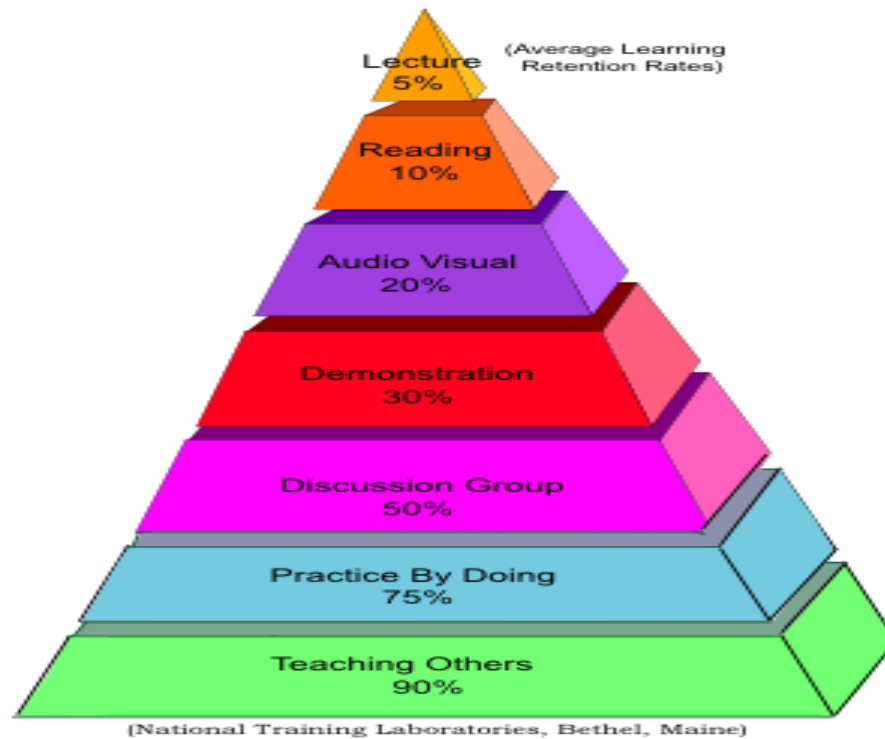


# Learning Pyramid



- Study without desire spoils the memory, and it retains nothing that it takes in.

## Leonardo da Vinci

*Italian engineer, painter, & sculptor (1452 - 1519)*



# CATALOG HUNT

A great aunt you never knew about just left you \$20,000 in her will. To avoid inheritance taxes and to honor the terms of her will, you must spend another \$20,000, by June 30, on one of the following projects:

1. Purchase educational toys for the Ronald McDonald House
2. Create a garden and wildlife learning center for your school
3. Purchase furniture for a local family of 5 children and 2 adults who lost everything in a fire



# CATALOG HUNT

You have 30 minutes to collaborate with your team members and list all items you will purchase and their costs. Be sure to include shipping costs.

The total must be \$20,000, or you will lose your \$20,000.



# Rigor, Relevance, and Relationship

***Using the iPad & Project Based Learning to  
teach the new three R's***

**June 12, 13, 18 & 20, 2013**

**Delaware Center for Teacher Education**

**Chrystalla Mouza, Frank Livoy, Kay  
Biondi, Todd Dunn, Lisa Prueter &  
Christine Evans**



# Learning-Based projects vs. Project-Based Learning

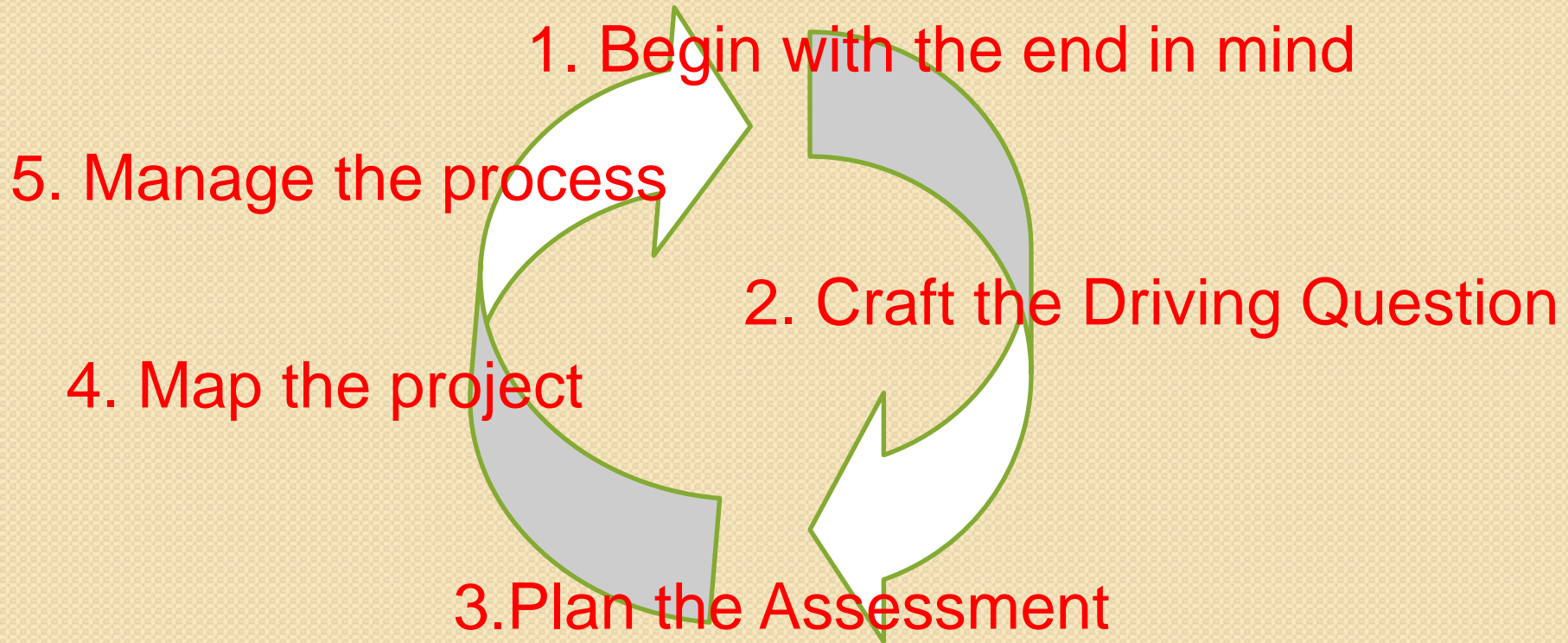
## Traditional (learning-based) projects often:

- Are a loose set of activities
- Supplement the curriculum
- Use big themes
- Use broad assessments
- Have little management structure

## Standards-focused PBL:

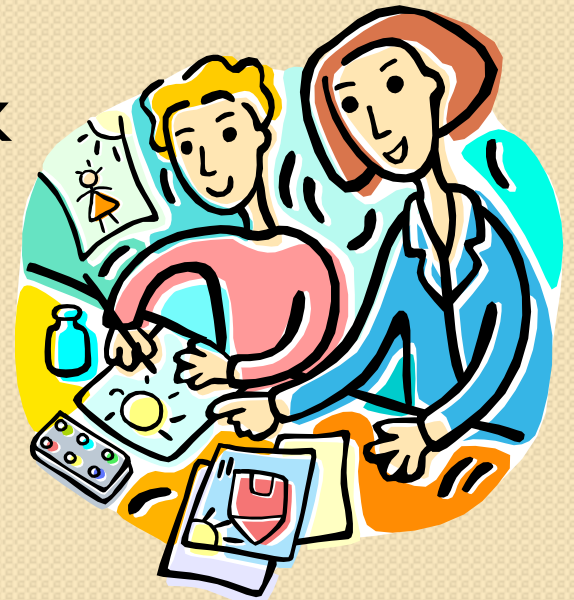
- Is inquiry-based; uses *Driving Question* as a focus.
- Is Part of the curriculum
- Is focused on specific standards, concepts and skills
- Aligns assessments with outcomes
- Uses project management tools to structure learning

# Project Design



# The process...

- Establish the right conditions for project based learning
- Design authentic academic work
- Plan backwards





# The Right Conditions

- What might be some of the right **conditions** for Project Based Learning?





# The Conditions for PBL

- A strong teacher–student relationship
- Rigorous standards
- Opportunity for student involvement to insure relevance

Under these conditions you will also promote resiliency in students and help build a culture of engagement in your classroom and school.

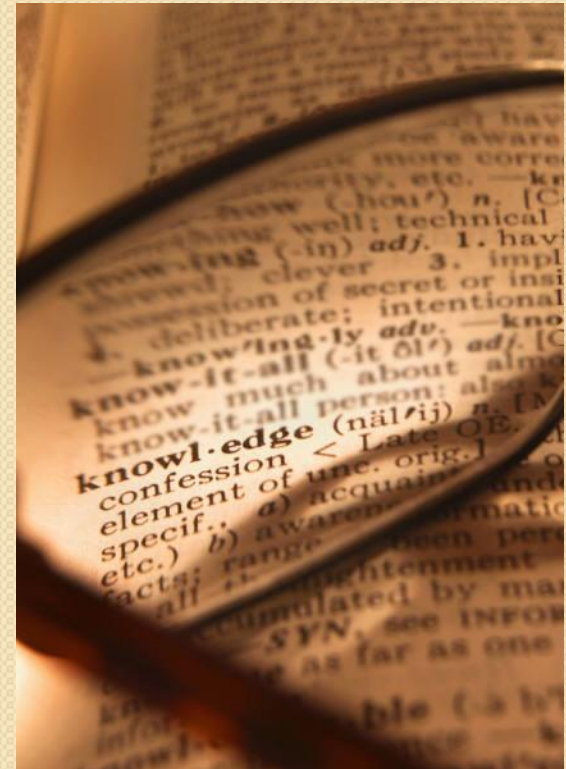
# Design **Authentic** Academic Work

- What makes schoolwork **authentic**?



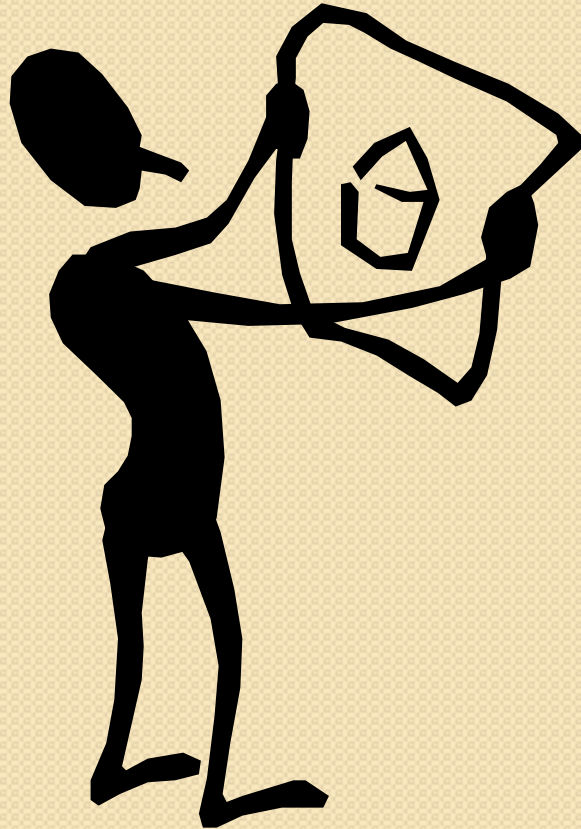
# A Definition of Authentic Academic Work

- Construction of knowledge
- Disciplined inquiry
  - Built on prior knowledge
  - In-depth understanding
  - Elaborated communication
- Value beyond school
  - Newmann, 1995



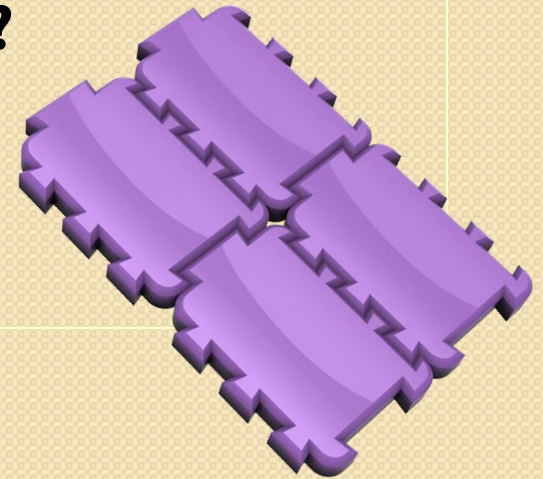
# Plan Backwards

- What does it mean to **plan backwards**?

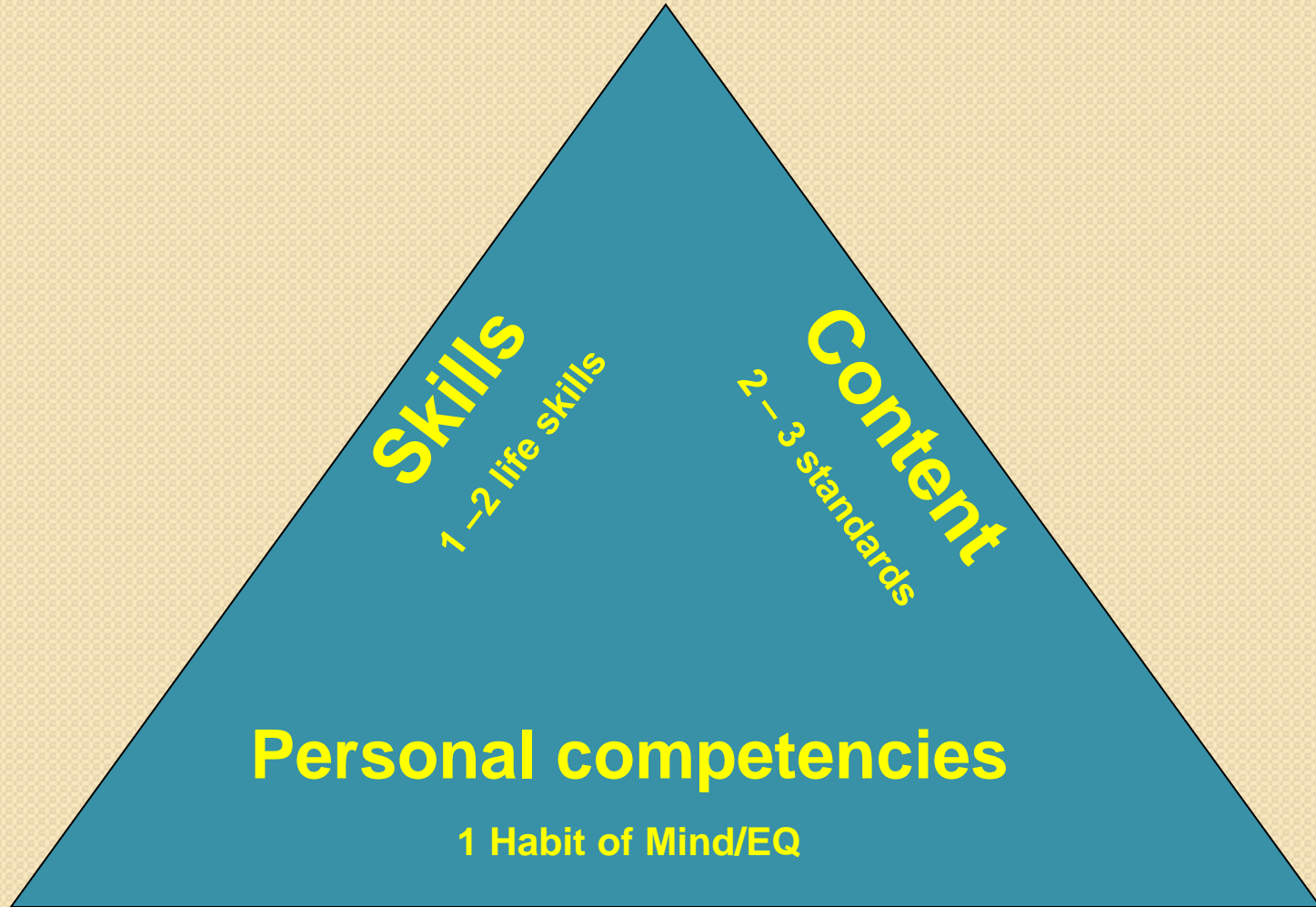


# Backwards Planning

- What should students know or be able to do by the end of this project?
- Who is the audience for the work?
- What products will students create?
- How will you assess all student work?
- How should activities be organized?



# Begin with the **End in Mind** Plan Simultaneous Outcomes





TOPIC  
versus  
CONCEPT







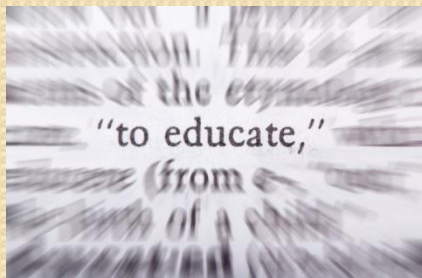
# Content/Standards

## Include:

- Common Core State Standards
- School-wide expectations or goals
- Literacy

## Think about:

- Covering vs. uncovering or discovering
- The “power” standards: *What are they and how do you teach them?*



# Organize Tasks and Activities

## Consider...

**Direct instruction**: What content knowledge do students need to succeed in this project?

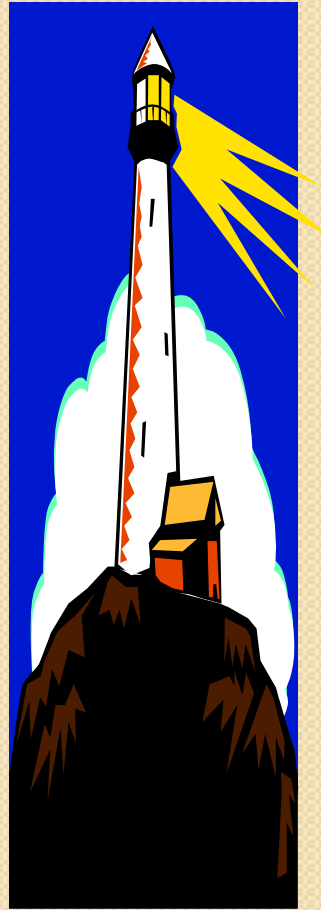
**Skill-building**: What skills do students need to succeed in the project? How will they learn how to do that?

**Culture-building**: Are students ready to manage themselves and work with one another? How will they learn to do that?

# The “Lighthouse” for the Project: A Powerful Driving Question

## *Inspiring*

- Provocative
- Open-ended
- Authentic



## *Focused*

- Concrete
- Requires core knowledge to answer
- Consistent with standards and curriculum

# Refining a Driving Question



How is nature interconnected?



# Refining a Driving Question

How is nature interconnected?



How do the bugs, leaves and water samples collected in our neighborhood show how systems in nature depend on one another?



# Refining a Driving Question

How do the bugs, leaves and water samples collected in our neighborhood show how systems in nature depend on one another?

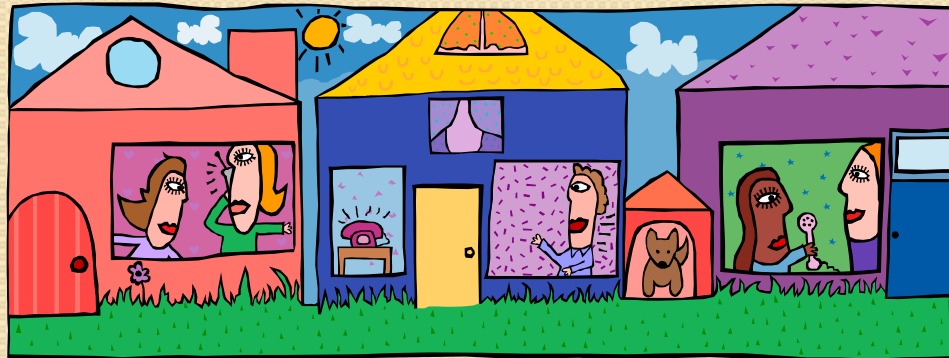
Re-write this DQ to be more appropriate for YOUR students.



# Refining a Driving Question



What is the history of  
our community?





## Refining a Driving Question

What is the history of our  
community?



How do the memories of people in  
our neighborhood help us  
understand our past and predict  
the future of our community?



# Refining a Driving Question

How do the memories of people in our neighborhood help us understand our past and predict the future of our community?

Re-write this DQ to be more appropriate for YOUR students.





You Do!

Create a driving question that addresses one of your curriculum standards and matches the qualities of a good ...

Driving Question

# Use the Driving Question to Focus the Inquiry Process

- Multiple perspectives or points of view on the question
- “Sub-questions”
- “Need-to-know” and teachable moments
- Knowledge gaps and formative assessments
- Student problem logs or journals to revisit and reflect on the driving question throughout the project



# KNOW WHAT TO ASSESS

- Break down content and skills into specific elements
- Establish clear performance criteria & communicate them to students ahead of time



# KNOW HOW TO ASSESS

How many ways can we find out  
what & IF our students are learning?



# RUBRICS

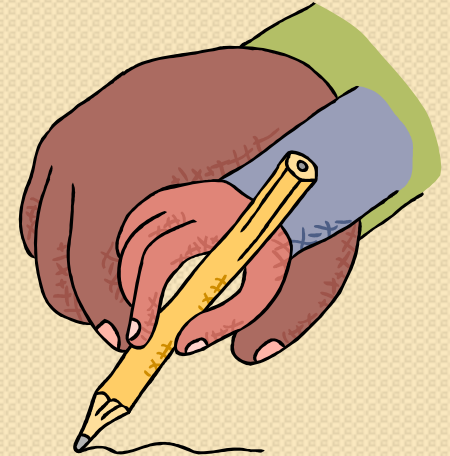
Why use rubrics?



# Use Rubrics to Evaluate Skills and Performance

## Rubrics:

- Fulfill conditions for good assessment
- Provide a tool for precise feedback
- Increase fairness while decreasing grading time
- Reduce quibbling over grades
- Give students specific guidelines while working independently or with a parent/tutor

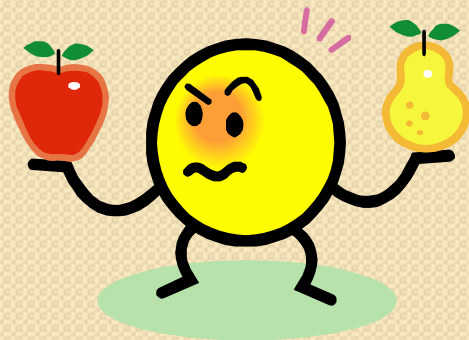


What is the difference?

**PRODUCTS**

**VS.**

**ARTIFACTS**





# Use Core Management Tools

- Task lists
- Daily goal sheets/briefs
- Time sheets
- Reflections in journals or problem logs
- Debrief with team leaders
- Have small groups report out to whole group



# Evaluate and Reflect

Research shows a **robust**  
connection between  
Reflection  
&  
Retention

# Need help?

livoy@udel.edu

also

*Use the Buck Institute handbook*

or

Check [www.bie.org](http://www.bie.org)

Without the possibility of action,  
all learning comes to one labeled

“File and forget.”

-Ralph Ellison

