

The background is a dark grey collage of various educational and scientific icons drawn in a light grey, sketchy style. These include a globe in the upper left, a large letter 'V' in the top left, a microscope on the left side, a stack of books at the bottom left, a plus sign and a cross in the bottom center, an open book with handwritten notes at the bottom center, a large percentage sign and a division sign on the bottom right, and a less-than sign at the far bottom right.

# **Maximize Teaching & Training Time With Multi-Disciplinary Approaches**

Anita Kerr

Southern Illinois Professional Development Center

A dark grey background featuring a collage of white, chalk-like sketches of various educational and scientific icons. These include a globe, a microscope, a book, a pair of compasses, a ruler, a test tube, a beaker, a lightbulb, and various geometric shapes and symbols like a percent sign and arrows.

[bit.ly/multitaskingteachers](https://bit.ly/multitaskingteachers)

All resources mentioned in the presentation are available here.



# What's your role?



You're asking me to do WHAT???



# We're asking you to...

- prepare students for HSE exams
- incorporate college and career readiness concepts to meet WIOA regulations
- teach to rigorous content standards
- incorporate evidence-based practices
- use (and teach students to use) technology
- assess students to demonstrate level gains



# Research says we are poor multitaskers...

- “Doing more than one task at a time, especially more than one complex task, takes a toll on productivity.” [www.apa.org](http://www.apa.org)
- “Research conducted at [Stanford University](http://StanfordUniversity) found that multitasking is less productive than doing a single thing at a time.”
- “Here’s practical advice from a neuroscientist: Don’t try to multitask. It ruins productivity, causes mistakes, and impedes creative thought.” [www.fortune.com](http://www.fortune.com)
- A recent Harvard Business Review post said **multitasking leads to as much as a 40% drop in productivity, increased stress, and a 10% drop in IQ** (Bergman, 2010).

Let's conduct an experiment...



# Multidiscipline, not multitask!

- If multitasking is not a good option, then let's become **multidisciplinary planners** instead. If we plan well and wisely at the outset, we will make life easier for ourselves, school more effective for students, and training more efficient for our participants.



# One approach to organizing content...

## Language Arts

- Reading strategies
- Writing skills
- Grammar
- Teach a little Shakespeare

## ELL Instruction

- Vocabulary
- Speaking & Listening
- Civics concepts

## Social Studies

- Civics & government
- GED's essential questions
- Thousands of years of human history

## Science

- Biology, physics, chemistry, earth science, life science
- Scientific method
- Hands-on experiments

## Math

- Interpret word problems
- Numeracy, algebra, geometry
- Show how to use that calculator

## Workplace and Career Readiness

## Technology

## Soft Skills

## Content for Career Pathways

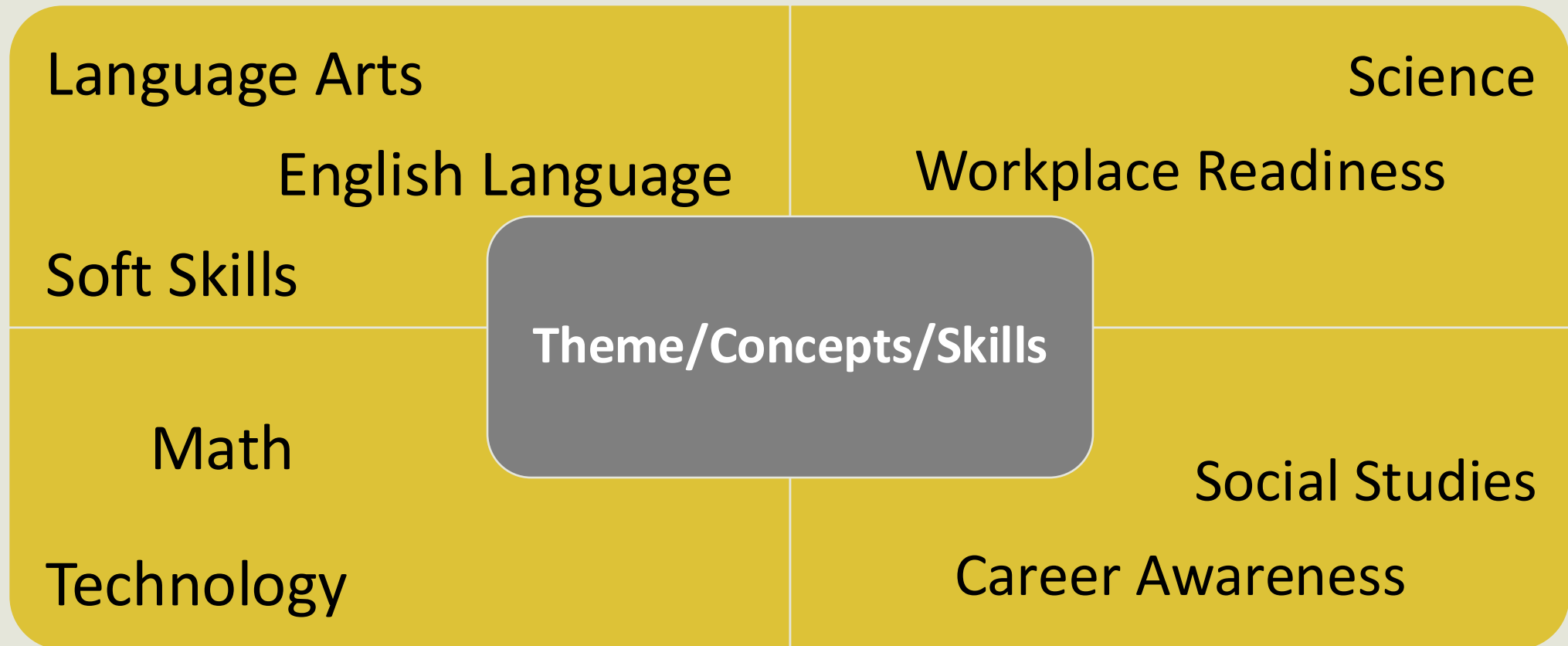
# Adult Education textbooks often lend themselves to silo approach

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# A better approach to maximize your time...





# Benefits of a Multi-Disciplinary Approach

- **Connections** – Show subjects as connected rather than separated to make meaningful connections.
- **Quality Time on Task** – Use time more efficiently.
- **Communication** – Active exploration of a theme promotes dialog, which develops speaking and listening skills.
- **Authenticity** – Cross-curricular = realistic learning (not isolated and segmented). This is more like real-world problem solving!

Can this approach be used in contexts other than teaching?

**YES!**



Knowles' theory of andragogy differs from pedagogy in the assumptions of the learner, which differ from those of pedagogy.

# What does Adult Learning Theory tell us?

- Since adults are **self-directed**, they should have a say in the content and process of their learning.
- Because adults have so much experience to draw from, their learning should **build on what they have already learned**.
- Since adults are looking for **practical learning**, content should focus on **issues related to their work or personal life**.
- Learning should be centered on **solving problems** instead of memorizing content.



Helpful Resource:

Check the Padlet for the article, “Adult Learning Theory in the Workplace”

# What is Adult Learning Theory?



## Page Contents



What is Adult Learning Theory?

5 Key Principles of Adult Learning Theory

1. Self-Directed Learning
2. Relevance and Goal-Oriented
3. Experiential Learning
4. Readiness to Learn
5. Problem-Solving Orientation

Applying Adult Learning Theory to Workplace Training

- i) Create a Learner-Centric Environment
- ii) Incorporate Real-World Scenarios
- iii) Using Technology
- iv) Facilitate Peer Learning and Collaboration

Benefits of Using Adult Learning Theory

Back to the classroom for a minute...

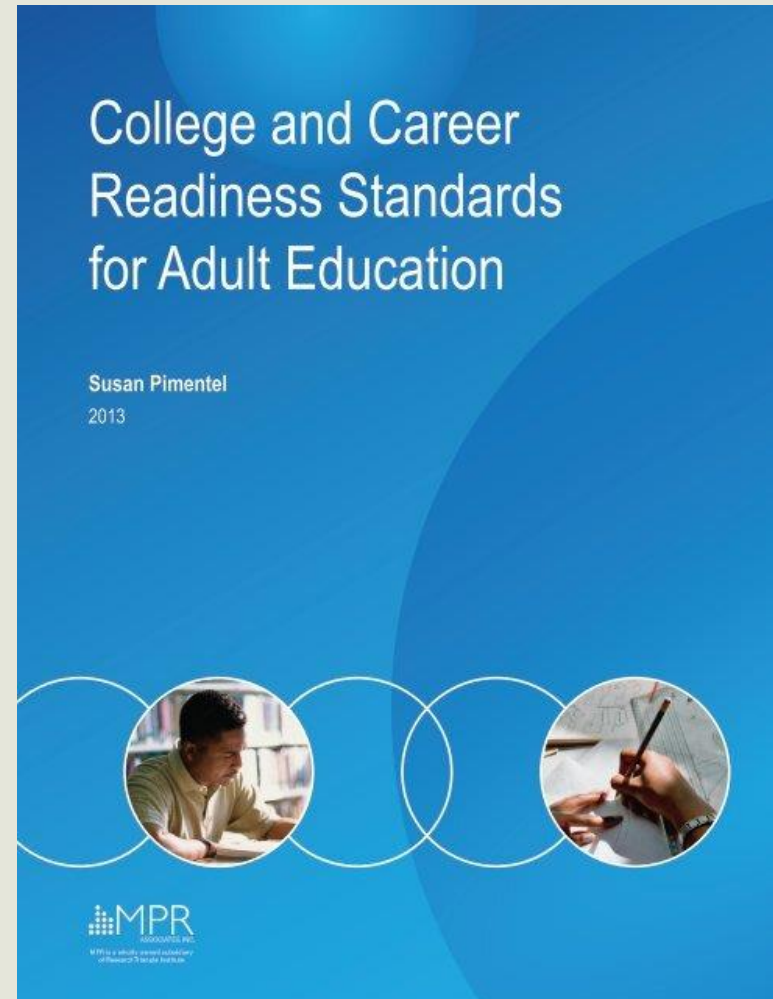


# The College and Career Readiness Standards

The CCR Standards are a great foundation on which to build lessons.

*Do you have a copy?*

*Do you have it [bookmarked](#) on your computer?*





# A specific Language Arts content standard to teach:

## **CCR Anchor 8**

- Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

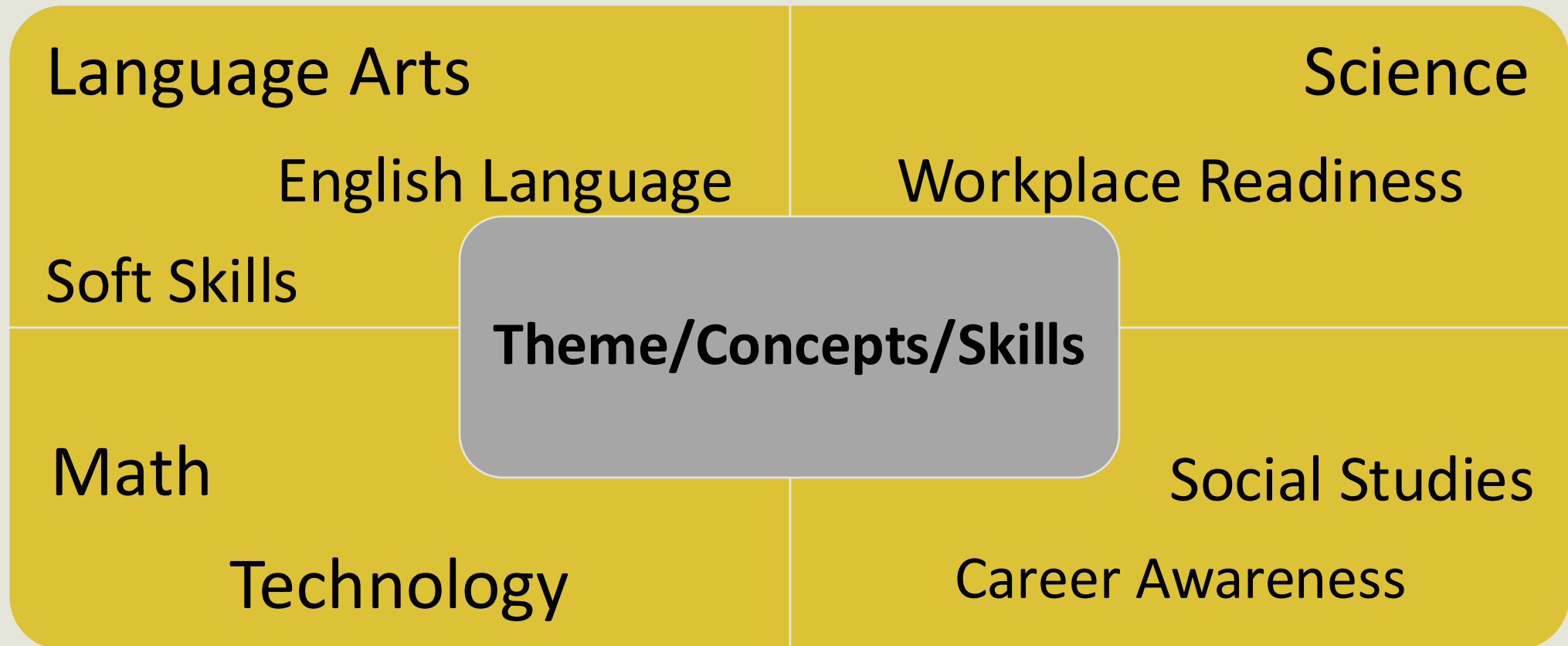
## **Silo approach**

- Select an article from a text or the internet.
- Students read it, determine one claim the article makes, and provide some specific evidence that supports the claim.
- Students write a brief written response and turn it in.

**But better yet: take a  
minute to brainstorm!**



# What else can we logically add to the lesson?





# A specific Language Arts content standard to teach:

## **CCR Anchor 8**

- Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

## **Silo approach**

- Select an article from a text or the internet.
- Students read it, determine one claim the article makes, and provide some specific evidence that supports the claim.
- Students write a summary paragraph and turn it in.


# CCR Reading Anchor 8 – Delineate and evaluate the argument and specific claims in a text

- Select a reading from a workplace context (use a marketing ad for a new product) **Career Awareness**
- Ask students to identify 3 claims made in the ad (including data regarding sales, finances, etc.) **Math**
- Put students in groups and ask them to create a brief PowerPoint illustrating their 3 claims. Require them to create a graph, chart, or other visual to support the data from the text. **Technology**
- Ask students to present the PowerPoint to the class, requiring them to explain the claims, delineate supporting evidence, and field questions from the class. **Soft Skills**



Can you identify 2 other content areas or skills to incorporate into a lesson on this math skill?

## Level C

Major Work of the Level	College and Career Readiness Level-Specific Standard(s)	Indicators: Knowledge <i>The learner should know...</i>	Benchmarks: Application <i>The learner will be able to...</i>
<b><u>Number:</u></b> Attaining fluency with operations, using multi-digit whole numbers and decimals	4.NBT.5, 5.NBT.4, 5.NBT.5, 5.NBT.7, 6.NS.2, 6.NS.3	How to multiply whole numbers and decimals	Fluently multiply whole numbers and decimals 





Need more time??  
Consider the  
**Flipped Classroom Model**

# WHAT IS THE FLIPPED CLASSROOM?

The flipped classroom inverts traditional teaching methods, delivering instruction online outside of class and moving “homework” into the classroom.

## THE INVERSION



## WHAT A FLIPPED CLASSROOM MODEL DOES



- Students watch lectures at home at their own pace, communicating with peers and teachers via online discussions.
- Concept engagement takes place in the classroom with the help of the instructor.



# Benefits of Flipped Classroom Model

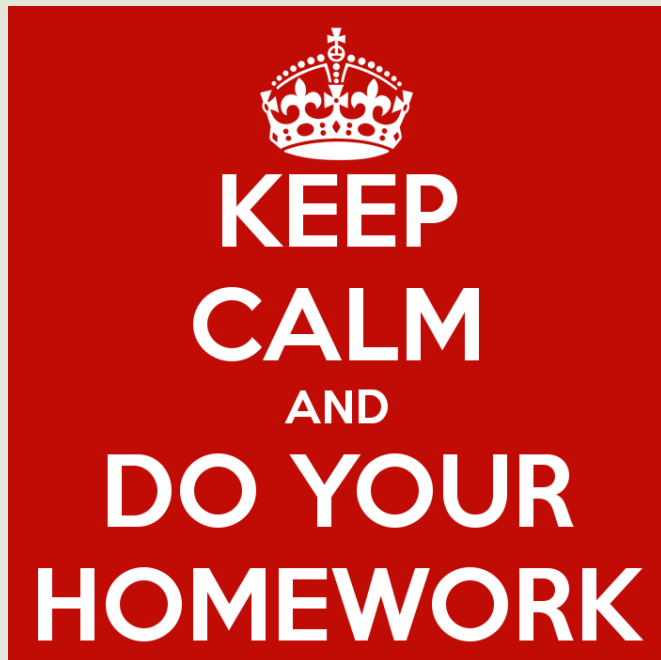
- Allows students to navigate course material at their own pace
- Encourages a self-directed approach to learning
- Honors diverse learning styles
- Encourages group work, peer collaboration, and discussions rather than passive listening
- Enables exploration of the content in a contextualized setting



# Access



# Homework



Homework is sometimes necessary, so don't be afraid to require it.

**Change the expectation – your students will adjust.**



# Use a multidisciplinary lesson plan template

Interdisciplinary Lesson Plans			
<b>Area/Skill</b> Mathematics, Social Studies, Science, Language Arts-Reading	<b>Cognitive Skill Level</b> Comprehension, Application, Analysis, Synthesis, Evaluation	<b>Submitted by</b> Lucille Jordan	<b>Location</b> Jackson Public Schools ABE/GED
<b>Activity Title</b> Traveler's Advisory			<b>Materials/Texts/Realia/Handouts</b> U.S. Map Road Map Prices for modes of transportation Calculator Brochures Checklist          <b>Extension Activity</b> Compare taking the trip during various seasons of the year.
<b>Goal/Objective</b> Participants will use their math skills, social studies and science knowledge, and writing abilities to plan a vacation which includes interruptions and rescheduling.			
<b>Lesson Outline</b>  <b>Introduction</b> Individuals who travel or who take vacations must be aware of unexpected situations that may occur that will cause an interruption in travel arrangements. This lesson will examine options that one may consider when completing travel plans.			
<b>Activity</b> 1) Have participants identify states and vacation sites that are located in each geographical area – Northeast, Southeast, Northwest, Southwest, and Central. 2) Have participants compare and contrast modes of transportation. 3) Have participants plan a vacation—to include transportation, lodging, weather needs, food, site-seeing, and unexpected circumstances			



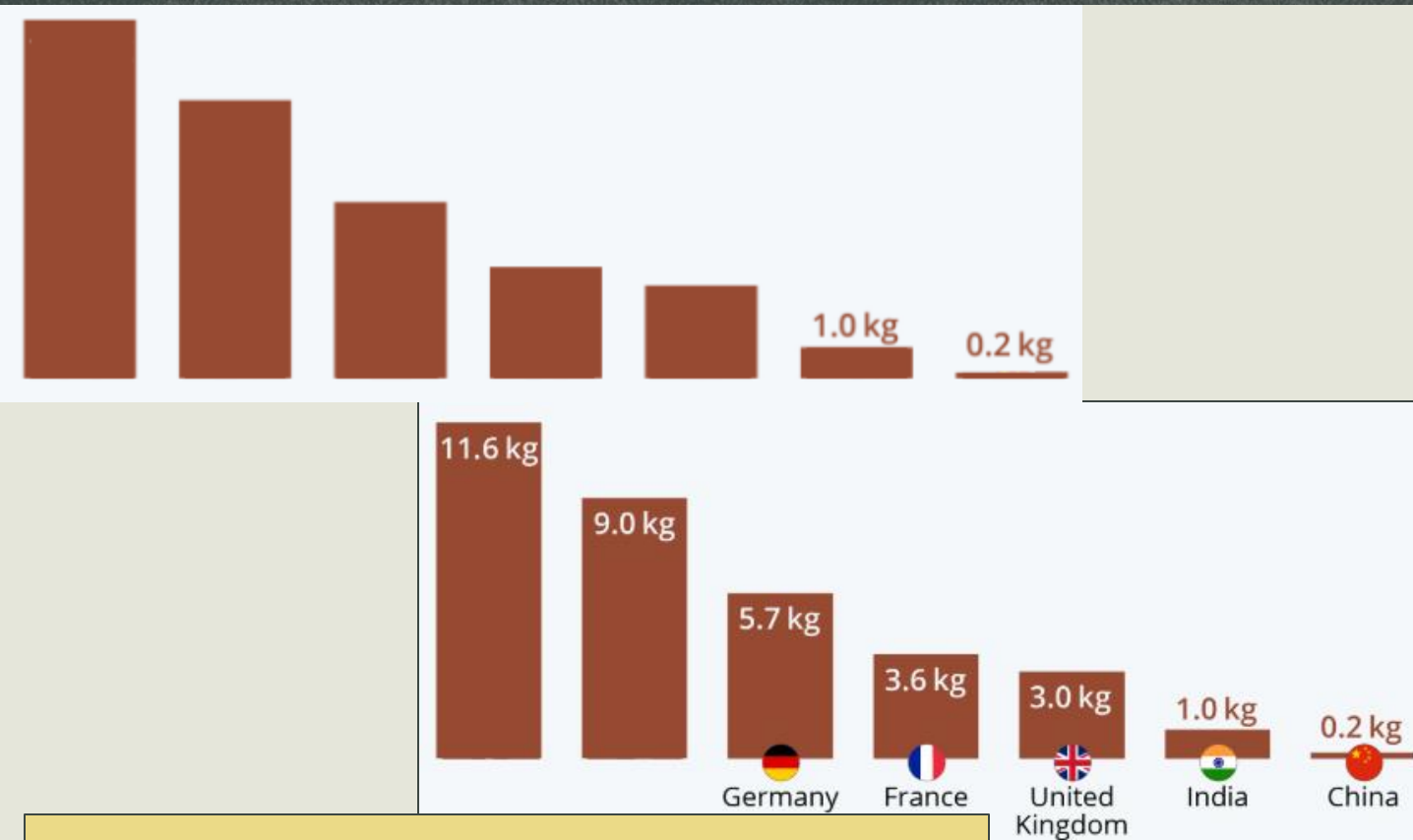
# Another multidisciplinary lesson plan template



## Multidisciplinary Lesson Plan Template

<b>Lesson Title:</b>		<b>Level of Lesson:</b>
<b>Essential Questions:</b>		
<b>Learning Targets</b>		
Content Area(s)	IL ABE/ASE Content Standards Targeted	
<b>Lesson Objectives (students will):</b>		
<b>Key Vocabulary:</b>		
<b>Instructional Materials:</b>		
<u>Textbooks:</u>		
<u>Multimedia:</u>		
<u>Web Resources:</u>		

# Ready-made multidisciplinary activities

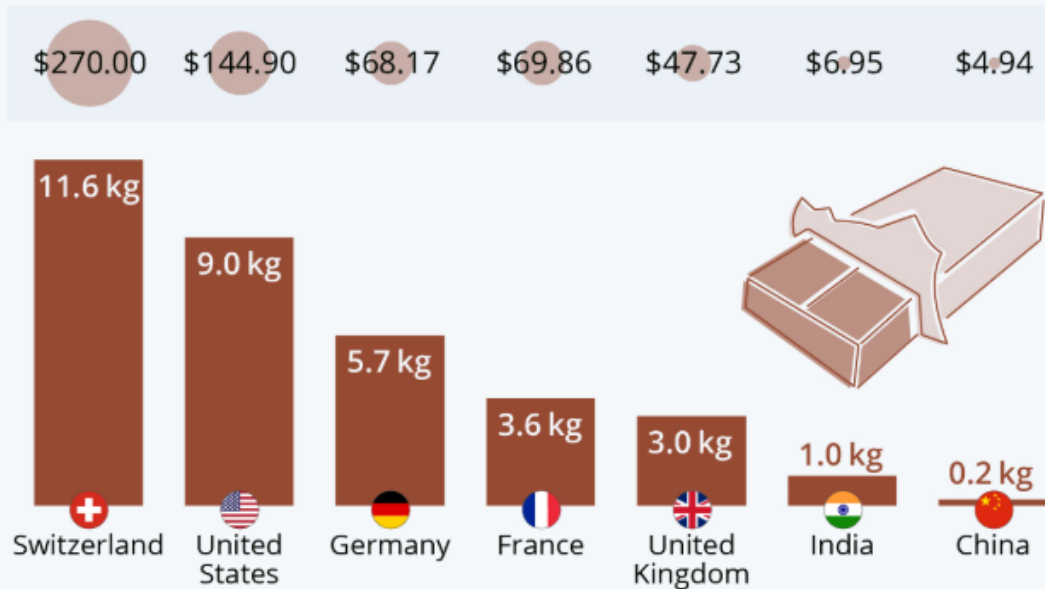


*Slow-Reveal Graphs*

## (Not) Everybody Loves Chocolate

Estimated chocolate consumption per capita in selected countries in 2021

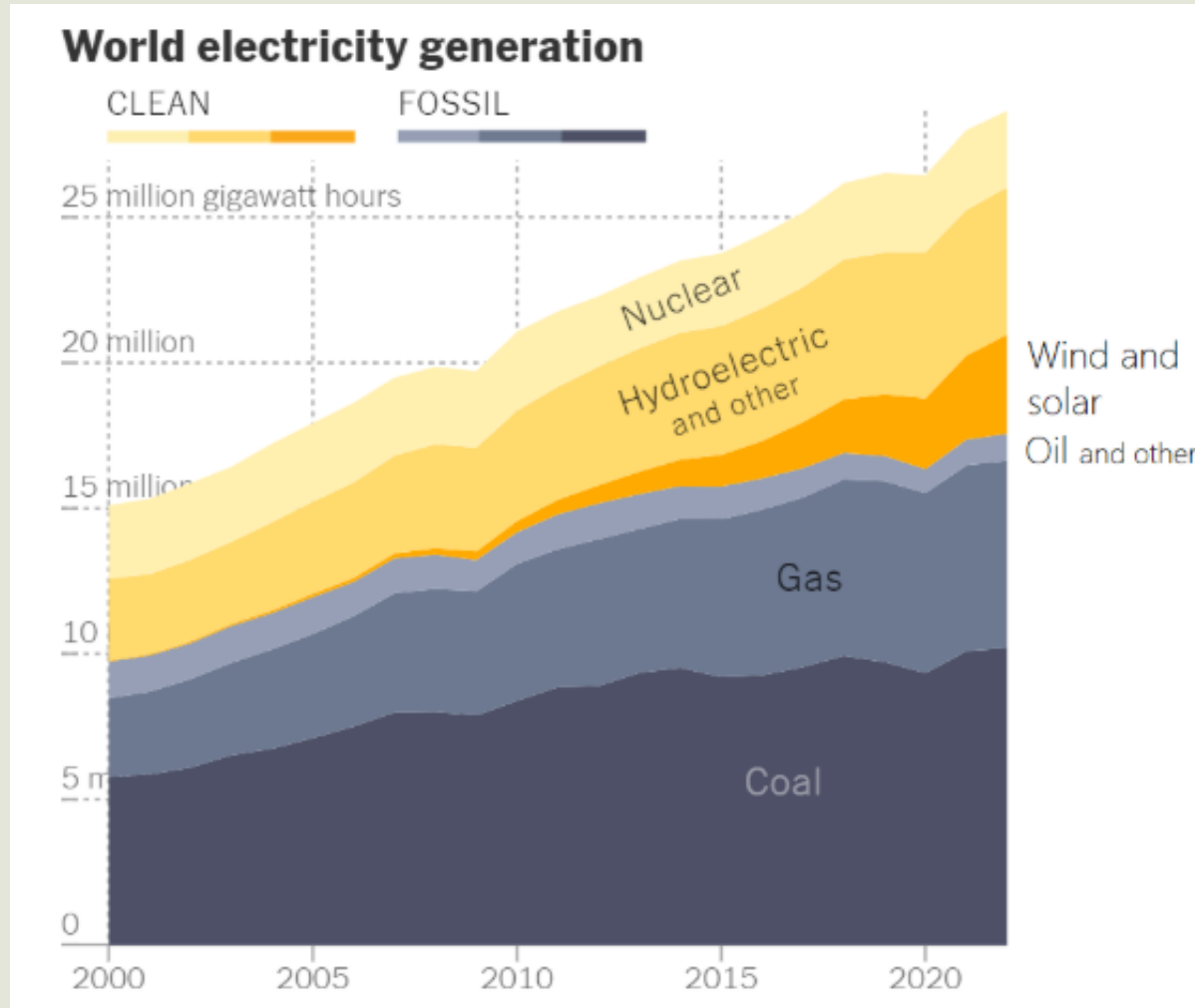
■ Consumption per capita ● Revenue per capita



Source: Statista Global Consumer Outlook



# Ready-made multidisciplinary activities



New York Times

What's Going On In This Graph?

What's Going On In This Picture?



# BUT...

- “I like that lesson I designed last year.”
- “My students and/or I prefer using this specific textbook.”
- “My program requires me to use the approved curriculum.”
- “I already turned in my lesson plans for the semester.”

Don't worry!

**You can still use this multidisciplinary approach.**

# Building Knowledge

Make a habit of looking at a question/prompt/activity and thinking:

- How can I extend this?
- What else can students research?
- To what can we connect this?



How can I  
extend this?

What else can  
students research?

To what can we  
connect this?

What other questions  
should I ask?

1. Read and reflect on this proverb from the Chinese philosopher Lao Tzu:

***A journey of a thousand miles begins with a single step.***



2. Put in your own words what you think this saying means. (on mic or in chat)

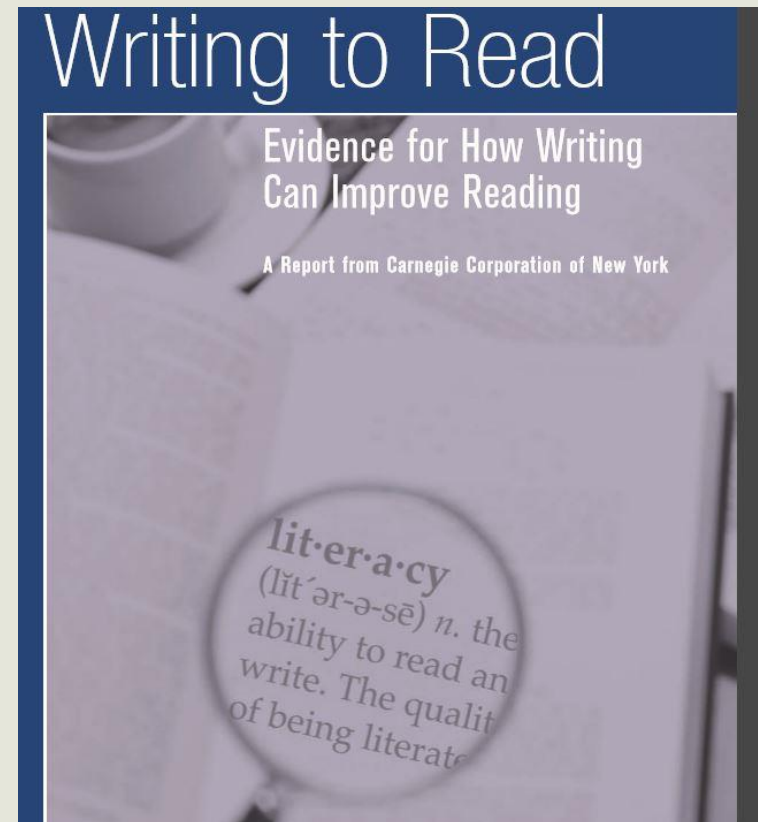
3. Why does the proverb contrast a 1,000 miles with a single step? What's the purpose?



# On the rough days...do one thing

“Many content-area teachers do not use writing to promote students’ learning (Kiuvara, Graham, and Hawken, 2009), but the findings from this report suggest that such techniques should be used more often.”

“When students read texts in science, social studies, and the language arts, their **comprehension of this material is improved by writing about it**. Likewise, writing about information presented in math, science, and other content classes enhances their learning of this material.”



[Carnegie report available on LINCS](#)

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**[bit.ly/multitaskingteachers](https://bit.ly/multitaskingteachers)**

Visit this link for multi-disciplinary  
instructional resources



**Good luck as you "do it all!"**

# Southern Illinois Professional Development Center

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