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# Accessible Online Tools for Contextualizing Learning: Infrastructure

29 September 2021

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# Meagen Farrell

## Mustard Seed Training



**Who Am I?**

**Author**

**Trainer**

**Woodworker**

**Chicken Lady**

**Mom**

Many Thanks!



UNIVERSITY <sup>OF THE</sup>  
DISTRICT OF  
COLUMBIA  
— 1851

# How Can Teaching Science Save the Planet?



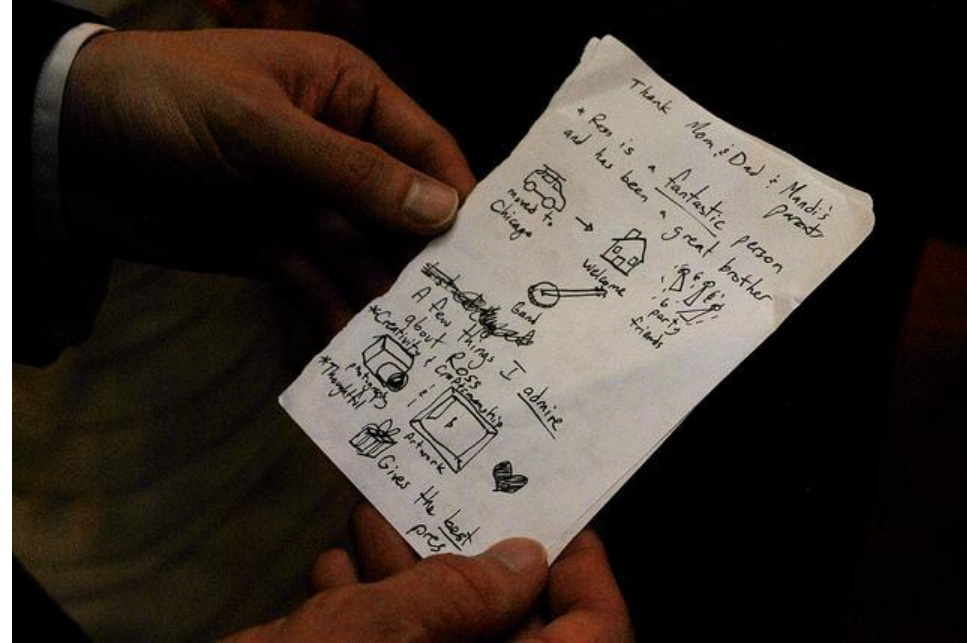


# What to Expect

**Objective:** You will leave this session with new tools & strategies to enliven instruction with occupational skills training.

- **Contextualized Lesson Plan**  
Blank template for all industries
- **Infrastructure Lesson Plan**  
Lesson 7: Conservation, Transformation and Flow of Energy
- **Top Picks for DC Educators**  
A curated selection of learning tools for Infrastructure

Get a pen or pencil and  
**Take Notes!**





## Quick Check: What is Contextualized Learning?

- A. Hands-on learning
- B. Content from a specific context
- C. Real-world vocabulary
- D. Understanding words in context



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# Contextualized Lesson Plan Template

Keep learners engaged!

Download from [Blog.MustSeed.org](http://Blog.MustSeed.org):

- Lesson Plan Template, blank or with notes
- Sample contextualized lesson plans for seven industries
- Slideshows from all OSSE/UDC webinars



# Template

Introduction:

Contextualization:

Direct Instruction:

Guided Practice:

Exploration Activity:

Personalized Learning:

Wrap Up/Exit Ticket:

Differentiation:

Assessment:

# Industry

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Sample Lesson  
From

→ The Literacy  
Cooperative's  
Contextualized  
Curriculum

ABOUT ▾

GET INVOLVED ▾

LITERACY FACTS ▾

PUBLICATIONS ▾

MEDIA ▾

EVENTS

CLE BEE

DONATE

Q

Aspire, and Project LEAD of Summit County) and workforce development organizations to collaborate on an industry-based curriculum for healthcare, manufacturing, hospitality, construction, and IT.

All instructors using the curriculum will be part of a three-year study that will be conducted by The Literacy Cooperative. The study will include surveys on the effectiveness of the curriculum, sharing aggregate classroom data on the progress of students when using contextualized curriculum, and the instructor feedback on the ease of use.

## Instructor Resources



Healthcare  
Contextualized  
Curriculum



Manufacturing  
Contextualized  
Curriculum



Digital Literacy  
Contextualized  
Curriculum



Construction  
Contextualized  
Curriculum



Hospitality  
Contextualized  
Curriculum

# Manufacturing: Science



*Lorain County  
Community College*



the **literacy**  
cooperati**ve**



Cuyahoga County  
Public Library







# Manufacturing Overview

Lessons created for the Manufacturing Feeder Programs at Lorain County Community College by ASPIRE Greater Cleveland.

- ➔ **Recommended Free Materials**  
Find & click from the Table of Contents
- ➔ **Table of Contents: Modules**  
Lessons and handouts organized by content on HSE exams
- ➔ **Sample Lesson**  
Science Lesson 7: Conservation, Transformation, and Flow of Energy

# Three Key Strategies:

Interdisciplinary



Contextualize

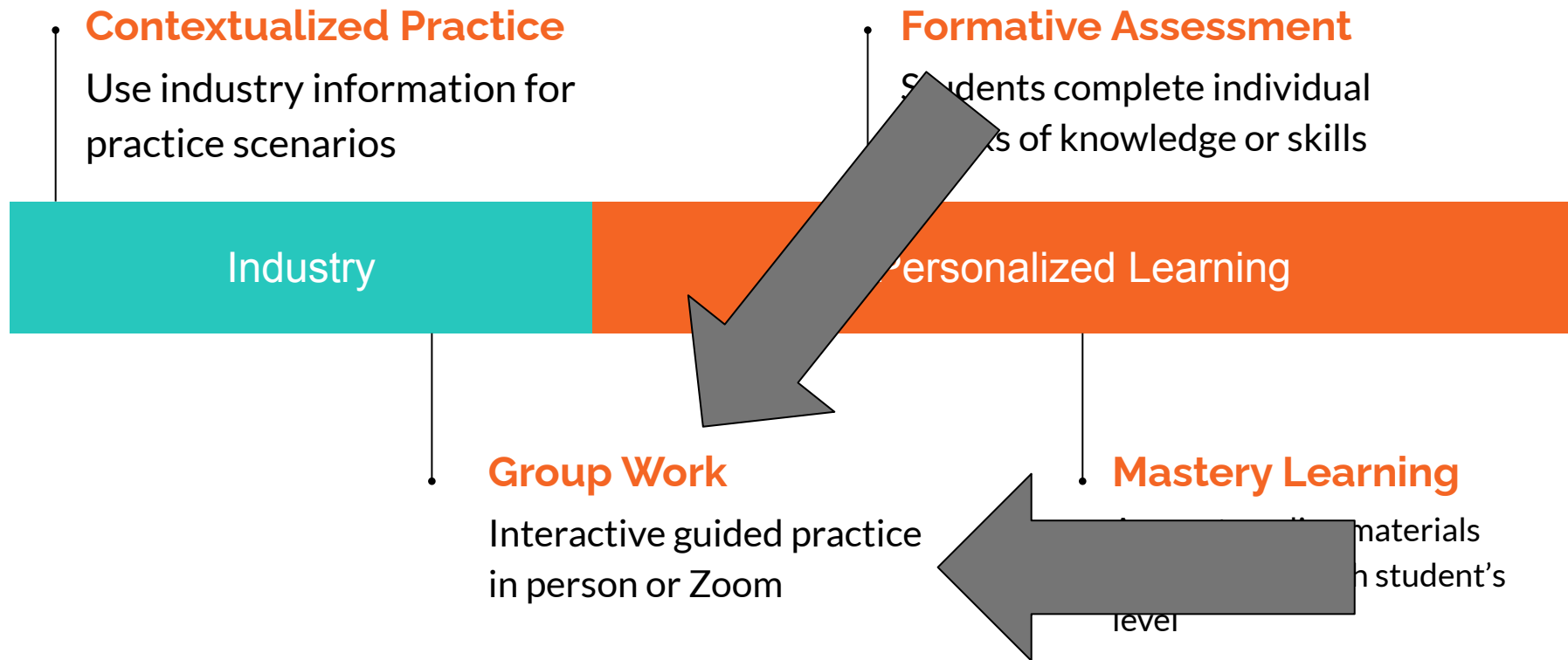


Differentiate



Source: Farrell, M. (2013) "Teaching Adults: GED Test Resource Book" New Readers Press

# Differentiate: Assessment Informs Instruction



# Template

Introduction:

Contextualization:

Direct Instruction:

Guided Practice:

Exploration Activity:

Personalized Learning:

Wrap Up/Exit Ticket:

Differentiation:

# Industry

Can We Run Out of Energy?

Career Exploration

Types of Energy

Identifying Types of Energy

What's Your Score?, Conduction,  
Convection

Virtual Job Shadow

Optional Energy Quiz

Chevy Volt Regenerative Braking

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# What do we do when a link goes bad?

Share a word or few in chat

1. Search in the site
2. Search the web (copy & paste)
3. Have back up resources



# Highlighted Resource

for DC Educators:

[DC Career Coach:](#)  
[Mobile Equipment Maintenance](#)



DISTRICT OF COLUMBIA  
OFFICE OF THE STATE SUPERINTENDENT OF

# EDUCATION

[Assessment](#)

[Careers](#)

[Programs](#)

[Résumé Builder](#)

## Mobile Equipment Maintenance

People with these jobs build and repair transportation equipment.

# Highlighted Resource

for DC Educators:

[Virtual Job Shadow's  
Career Assessments](#)



# Highlighted Certification

for DC Residents:

[Building Maintenance Service  
Technician Certification](#)



# Highlighted Program

for DC Residents:

[So Others Might Eat \(SOME\)](#)



# Top Picks for Online Learning

## Infrastructure:

[DC WORKS](#)

Industry Magazines  
& Blogs (TOC)

[Skills to Pay the Bills](#)

[OSHA](#)

## OSSE Resources:

[Main Page](#)

[Career Coach DC](#)

[Essential Education](#)

[Virtual Job Shadow](#)

[Northstar DLA](#)

## Science:

[Khan Academy](#)

[Energy.gov EERE](#)

[PBS Learning Media](#)

[Science Spot](#)

*Links subject to change*

*Add your favorites in chat!*



# ALL THE LINKS!



Just want the websites? They're listed in order near the end of the document.

Any other  
**Questions?**



**Thanks for Coming!**

[blog.mustseed.org](http://blog.mustseed.org)

