



# Enhancing Training With Video-based Learning Objects

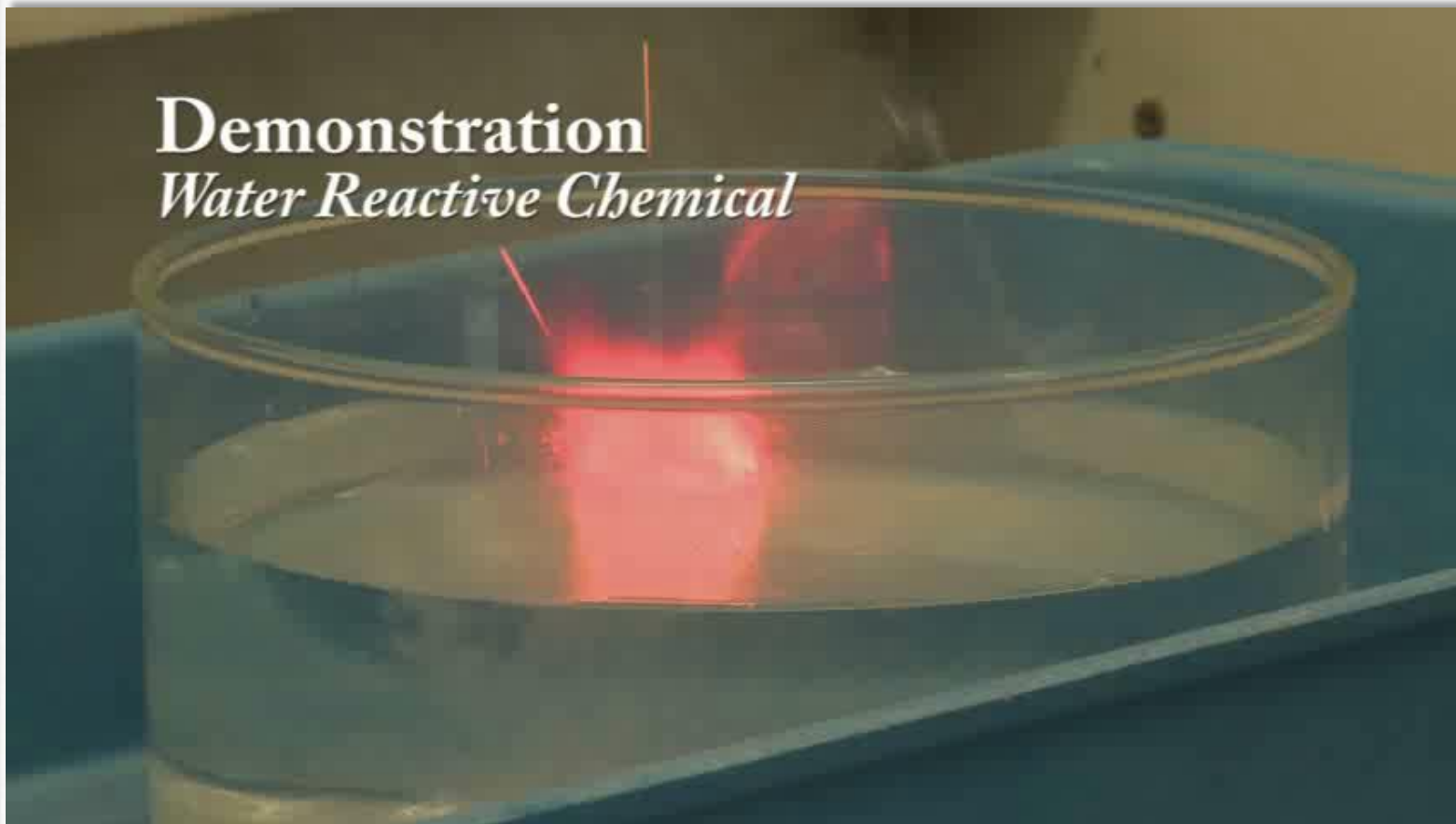
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OEHS<sup>2</sup> & Yale University

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OEHS<sup>2</sup>  
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# Example Of A Simple Video-based Learning Object



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# Example of a Complex Learning Object – Video Embedded in File

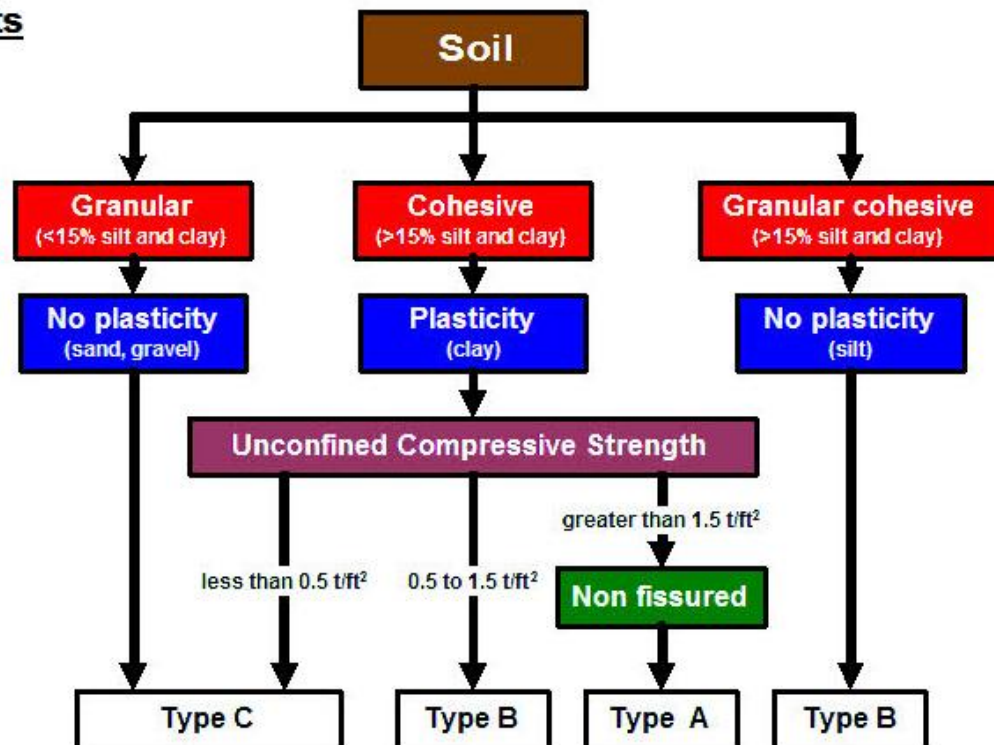
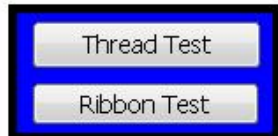
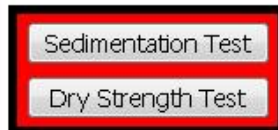


*E-Tool*

*Soil Analysis Methods*

*OEHS<sup>2</sup>*

## Manual Soil Tests



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# What are learning objects?

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A learning object is a resource, usually **digital** and often web-based, that can be **shared, used and re-used** to support learning.

A learning object is the smallest “nugget” of instruction or information that **can stand on its own**. It focuses on a **single learning objective**.

Learning objects are simple building blocks that **fit into existing training programs**.

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# What are the components of learning objects?

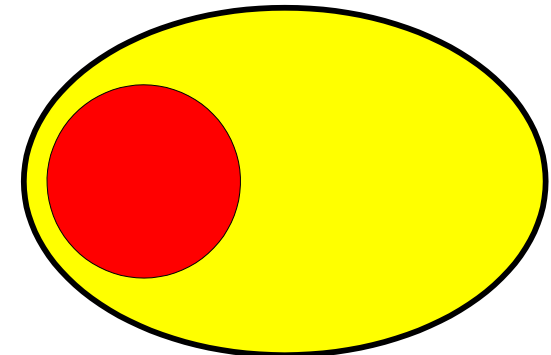
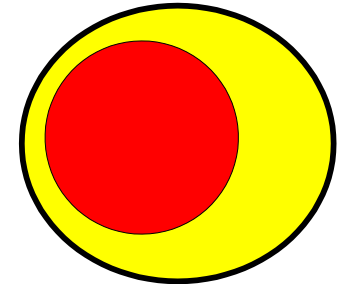
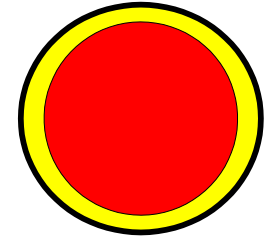


## Content

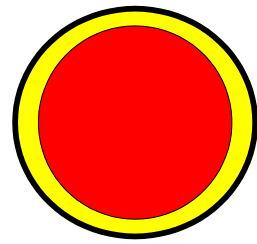
- the concept or piece of information being conveyed

## Context

- how the content applies to the learner's environment



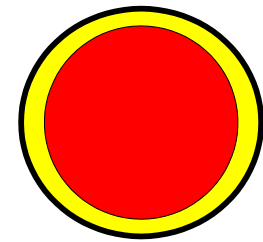
# Example... mostly content



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# Example... mostly content



## E-Demo

## Flammable & Combustible Solvents

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### Resources

MSDS diesel fuel

MSDS gasoline

In this video clip a small amount of diesel fuel and gasoline are added to beakers. Then a flame is passed over the top of each fuel. Watch what happens...

### Instructions

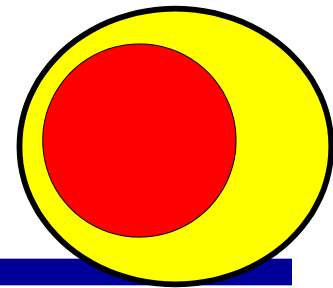
Watch the video on this slide and then proceed to the next slide to review some questions

Diesel fuel  
Ambient temp: 72F

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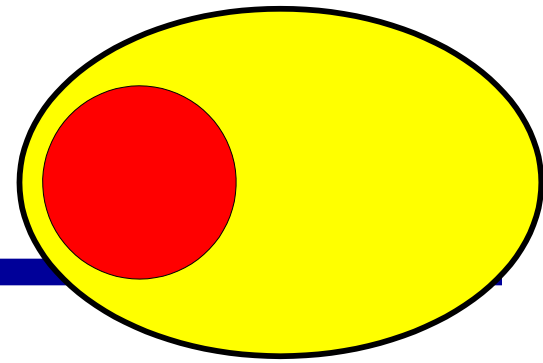
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# Example... some context



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# Example... lots of context



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# What makes a learning object valuable?

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- **Provides a visual representation of a key concept**
- **Assists trainers convey difficult technical content**
- **Empowers and strengthens the role of the trainers**
- **Encourages dialog**



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# What can learning objects do?

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- **Illustrate a concept**
- **Illustrate a best practice**
- **Illustrate how to apply a concept in a specific environment or situation**
- **Shape attitudes**
- **Assess learning**



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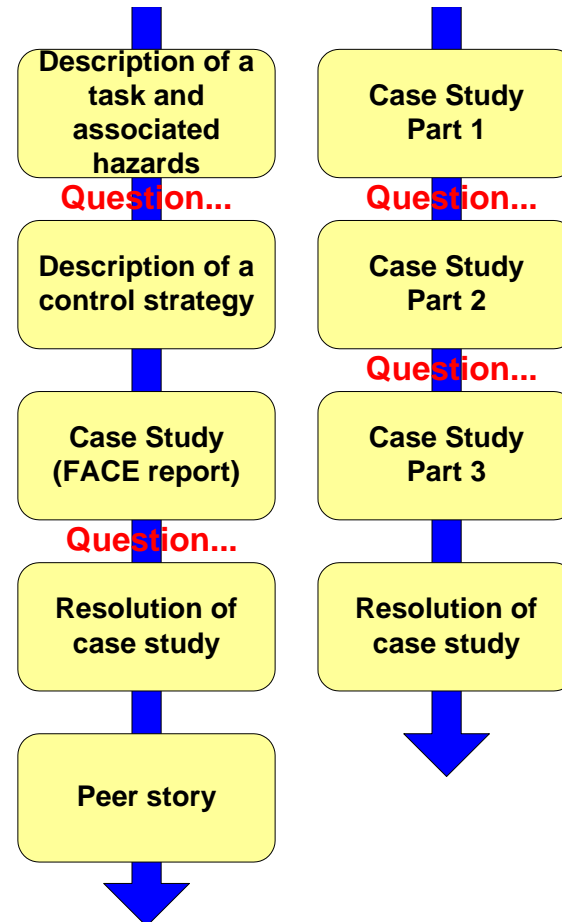
# Different Designs



## Simple objects



## Compound objects



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# Different Designs



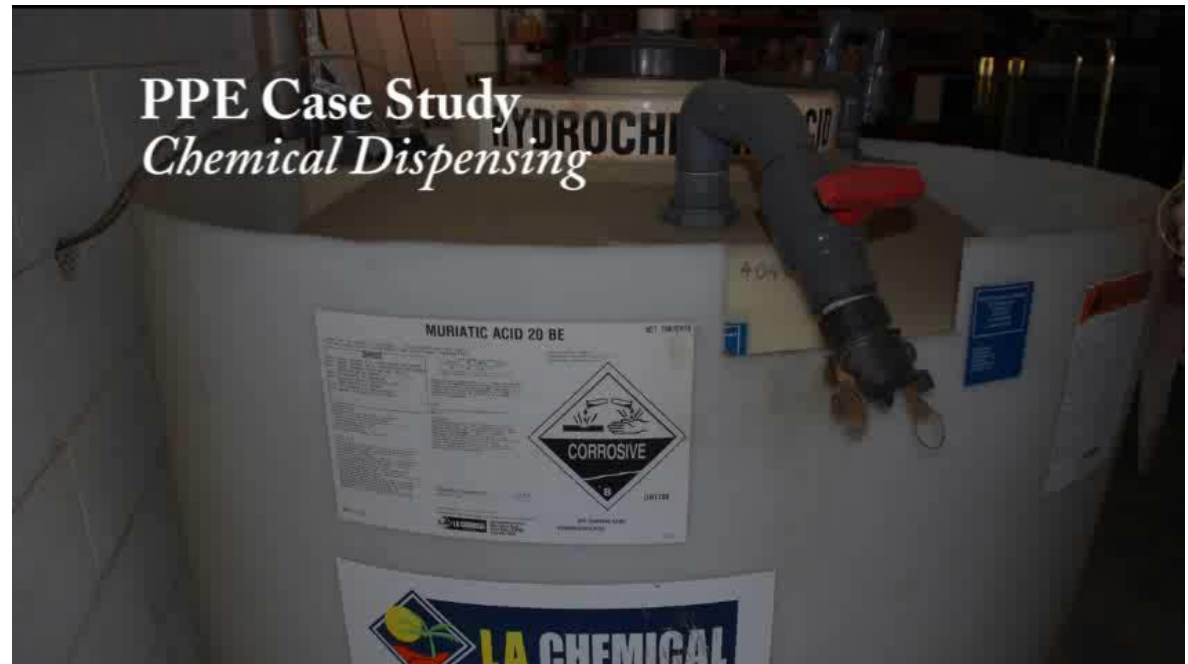
Description of a task and associated hazards

Question...

Description of appropriate practices

Question...

Demonstration of why practices necessary



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# Different Designs



Case Study  
Part 1

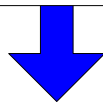
Question...

Case Study  
Part 2

Question...

Case Study  
Part 3

Resolution of  
case study




**E-Case Study**      *Confined Space Entry*      **OEHS<sup>2</sup>**

**Resources**

- MSDS
- OSHA CS Regs
- Effects of O2 Def

**Instructions**

Watch the video on this slide and then proceed to the next slide to review some questions



Slide 2 of 13

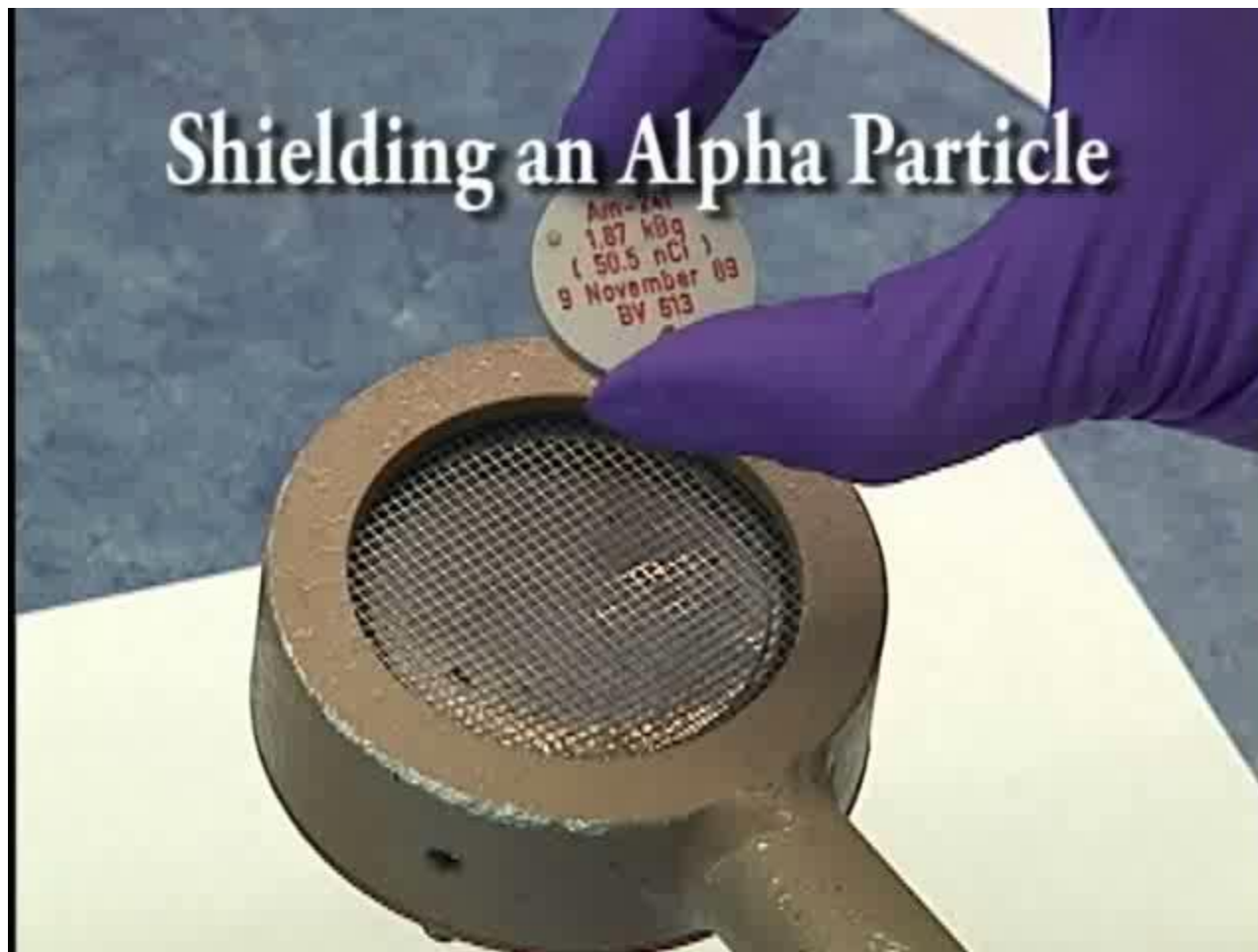
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# Assertion – Evidence Design

**Assertion – Alpha particles are easily shielded and only hazardous if allowed to enter the body**



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# Where does the media/content come from?



- **Create it (shoot and edit it)**
- **Use existing media (edit it)**
  - Chemical Safety Board
  - Mine Safety and Health Administration
  - Canadian and Australian WorkSafe
  - British Health and Safety Executive
  - Internet Archives and National Archives
  - Local TV stations (with permission)



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# Feedback from trainers

- **Informal feedback only...**
- **8 trainers have rated the 10-12 learning objects I have distributed to date as valuable to very valuable**
- **Comments include – easily adaptable; encourages dialog; very useful resource**



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# Closing Thoughts...

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- **Encourage the creation, distribute and use of learning objects**
- **Formally evaluate the effectiveness of various types/designs of learning objects**
- **Develop a community of developers producing content in a common format**
- **Develop a distribution platform for objects**



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