

VLS Design Kickoff

Part I: Learning Design

April 28, 2021

<https://uoft.me/vls-support>

Kickoff Introductions

- Welcome to the Day
 - OLS Team
 - CTSI Colleagues
 - Project Teams



Project Teams

These are your colleagues who were also funded for VLS projects.

Included here are the names of the lead(s) of the projects, the division/unit they are from and the project title as well as content stream.

Take a moment to look through the range of initiatives being undertaken by your colleagues!

Lead(s)	Division/Unit	Project Title	Stream	Category
Helen Tran	Dept of Chemistry, FAS	STEM Education <-> Design Thinking	Digital Fluency	Digital Fluency Modules
John Hannah	Division of Student Life	Supporting Academic Resilience for International Students	Digital Content	Modules
Jessica Slomka, Paul Ashwell, Semechah Lui, and C.H. Eyles	Chemical and Physical Sciences, UTM; McMaster University	Virtual Earth: Technology-based Earth Sciences Lab Series	Digital Content	Modules
Cindy Woodland, Derek Ng, Stavroula Andreopoulos	Faculty of Medicine, Pharmacology and Toxicology and Biochemistry, Dept. of Biology (UTM)	A Multimedia Approach to Understanding Drug Interactions	Digital Content	Modules
Kathy Trip and Jean Wilson	Lawrence S. Bloomberg Faculty of Nursing	Simulation of Gynecological Examinations	Digital Content	Modules
Michal Kasprzak and Cristina D'Amico	Centre for Teaching Support & Innovation	Developing Your Teaching Dossier: A Series of Four OER Asynchronous Online Modules	Digital Content	Modules
Nick Eyles	Department of Physical and Environmental Science, UTSC	A country on the move: Canada's changing landscapes	Digital Content	Modules

Your Team Players

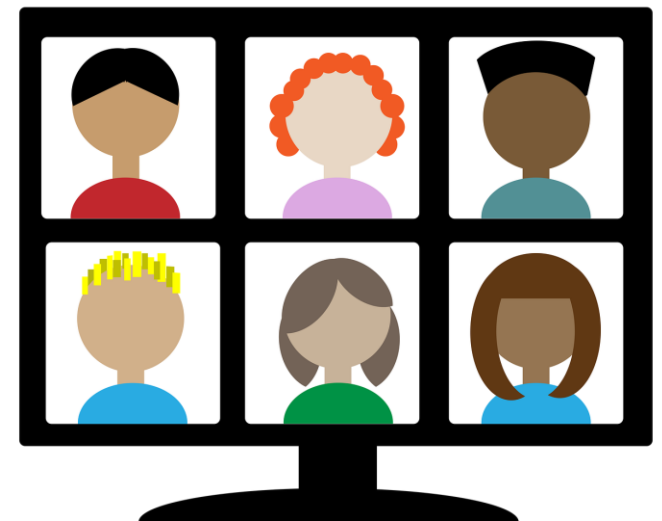
- **SMEs:** Guide and/or prepare high level module outcomes, assessments and activities, as well as content decisions.
- **Instructional Designers:** Input to design of learning experience and development of aligned and scaffolded activities.
- **Educational Technology Support:** Divisional contacts with expertise in both pedagogy and educational technology integration.
- **Developers and Content Builders:** Media development and technical implementation in sharable, accessible formats.
- **Librarians:** Faculty liaison in discipline area or copyright specialist.



Who is in the Virtual Room?

Complete our poll to tell us what will be your main role on your project?

- **SMEs/Project Lead**
- **Instructional Designers**
- **Educational Technology Support**
- **Developers and Content Builders**
- **Librarians**
- **Project Coordinator**



What is one thing you really want to learn about today?

Use the chat tool to tell us about one important learning goal you have for today that will help you move your project forward.



Game Plan

1. Apply foundational concepts related to digital content design supporting learner engagement and active learning
2. Follow a process for integrative curriculum development using backwards design and alignment strategies
3. Sequence and scaffold example online components/models



1. Foundational Planning - Module Design

After this segment you will be ready to:

- Situate your module in the overall project/goal context
- Link your module ideas to a plan for active learning
- Compare various models for module format incorporating digital elements

eCampusOntario Context

VIRTUAL LEARNING STRATEGY

Three Principles



Collaborative

The VLS will prioritize collaboration for sector transformation that impacts all institutions



Learner-Driven

The VLS will drive virtual learning excellence for all learners in Ontario, now and into the future



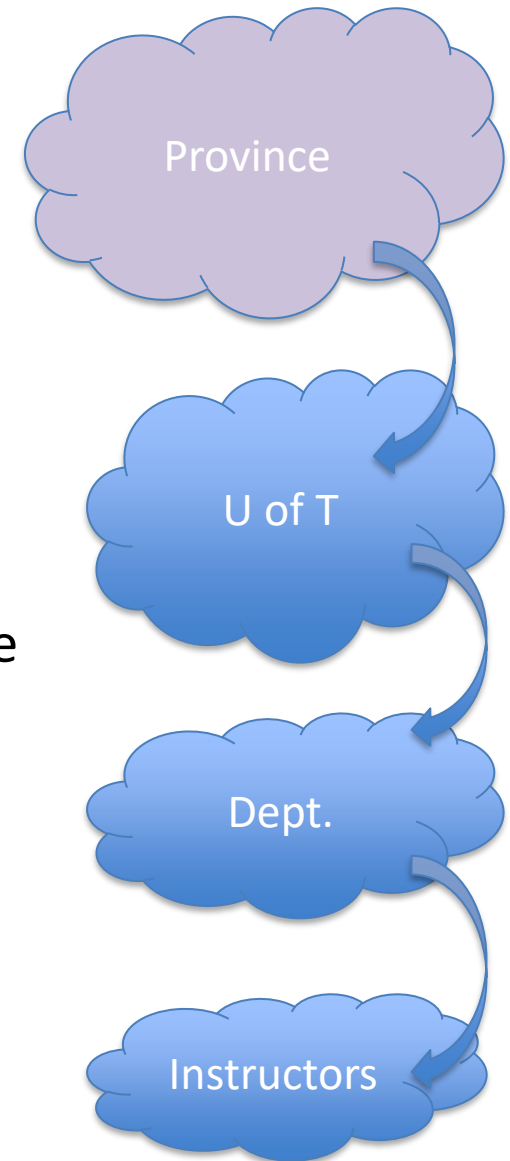
Digital by Design

The VLS supports the development of online content and supports that are digital by design.

Our Stakeholder Context

- Ontario government → eCampusOntario
 - Sharing content for efficiency
 - Support student access
 - Improve quality
- U of T values enhancement of student learning and engagement
- Programs, instructors and support services have learning goals for students

→ not just about creating digital content, but about re-designing learning



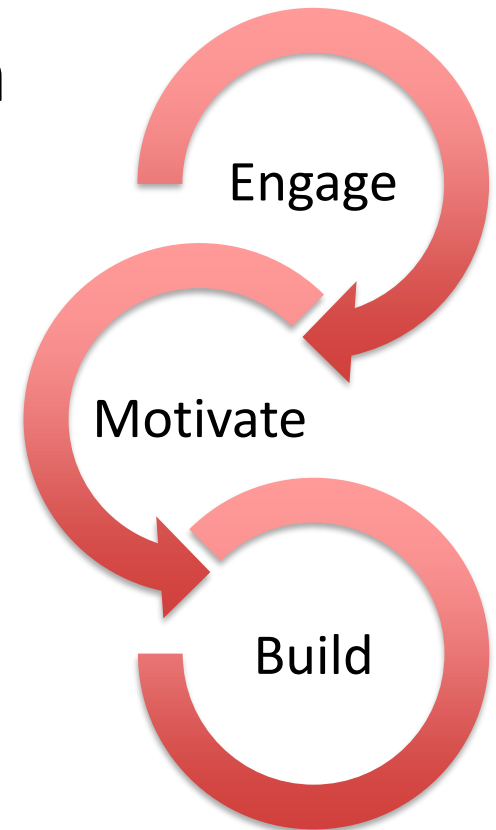
About Active Learning

- All of your proposals and projects suggest an interest in “active learning” or “interactive activities”
- What is active learning in the context of a module or OER?
- Share your ideas in the chat.



What do we know about benefits of active learning?

- frequent and more immediate feedback
- relevant and meaningful problem solutions or interpretations
- increase motivation
- improve self-efficacy for future learning



Using Digital Content to Support Active Learning

Model	Affordance
Supplemental [Optional]	Scaffold learning support/success in addition to or prior to lesson/course
Replacement for In Person [Hybrid/Online]	Flexibility to leverage remote learning
Flipped [In Person Redesign]	Online preparation to support active learning in class
Tutorial/Lab [Access and Interaction]	Actively engage student in an alternative online application and practice

Which of these describes your project?

Which of these models you have in mind for using your digital content?

- **Supplemental**
- **Replacement for In Person**
- **Flipped**
- **Tutorial/Lab**
- **Other**



Use the chat tool to share your ideas.

(Or more than one as content re-use by different course instructors may result in integration into different models?)

Examples Activities and Assessments

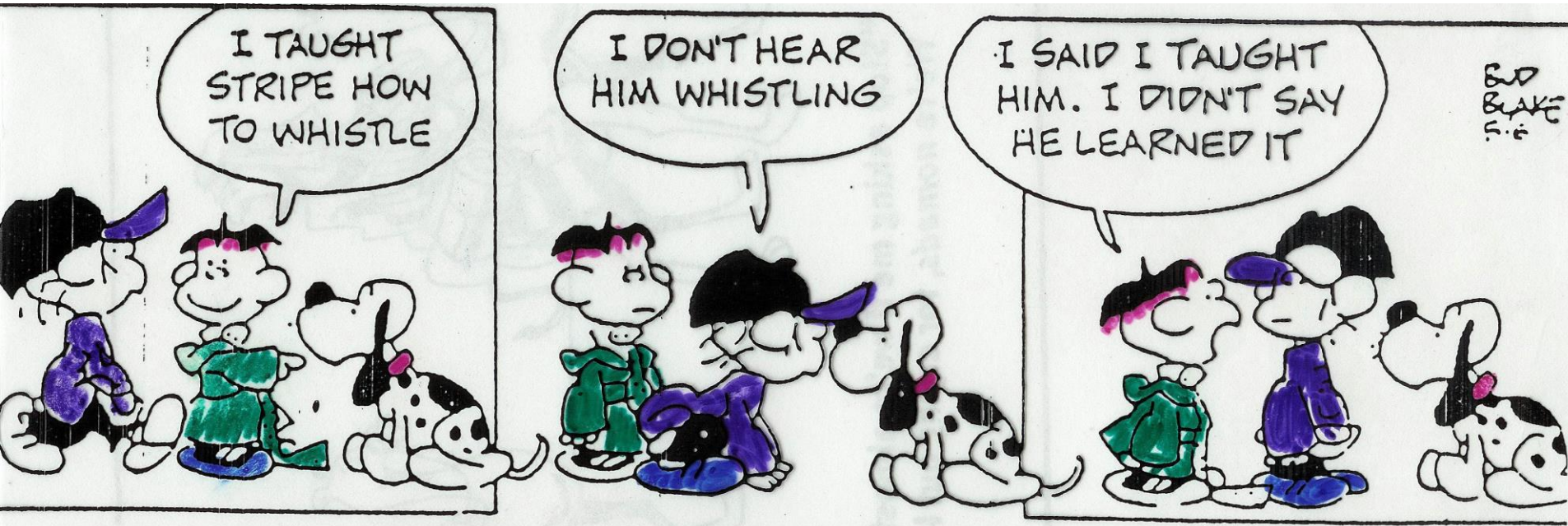
- Short video (range of content/formats)
- Inline video quiz
- Screencast demonstration
- Interactive models of processes
- Links to existing Open Educational Resources
- Simulations
- Self-test on content
- Reflections
- Case studies and scenarios
- Other ideas...?

2. Backwards design and alignment strategies

After this segment you will be ready to:

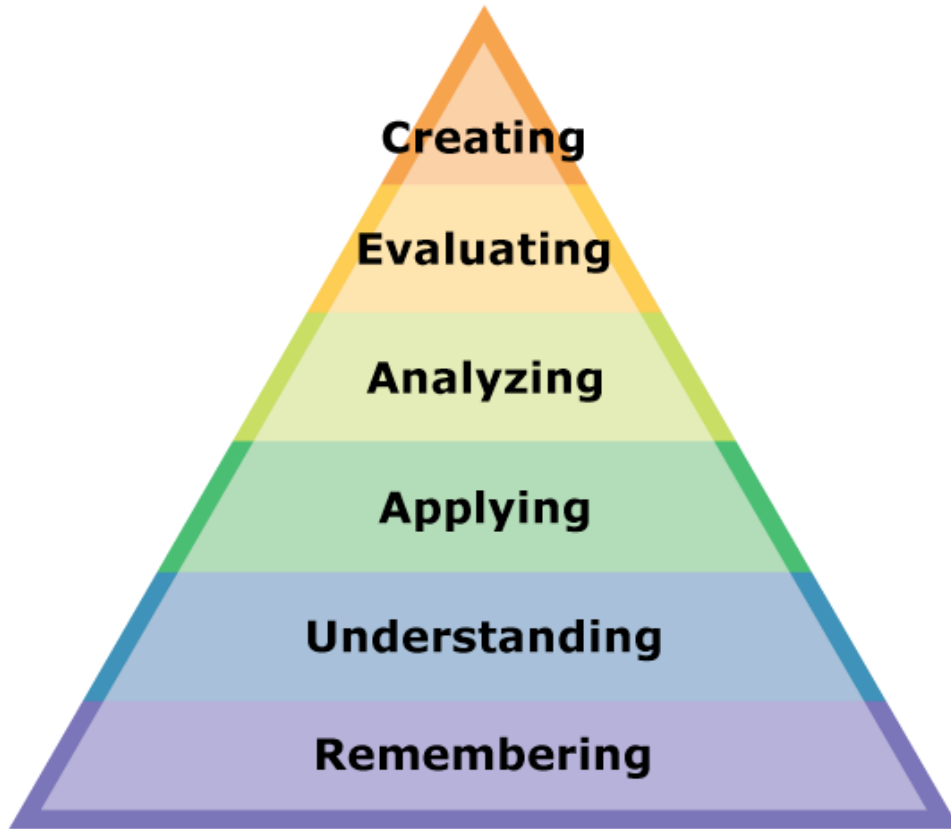
- Identify opportunities for higher order thinking
- Consider scaffolding needs to achieve desired learning outcomes
- Include aligned assessment strategies

How does learning happen...

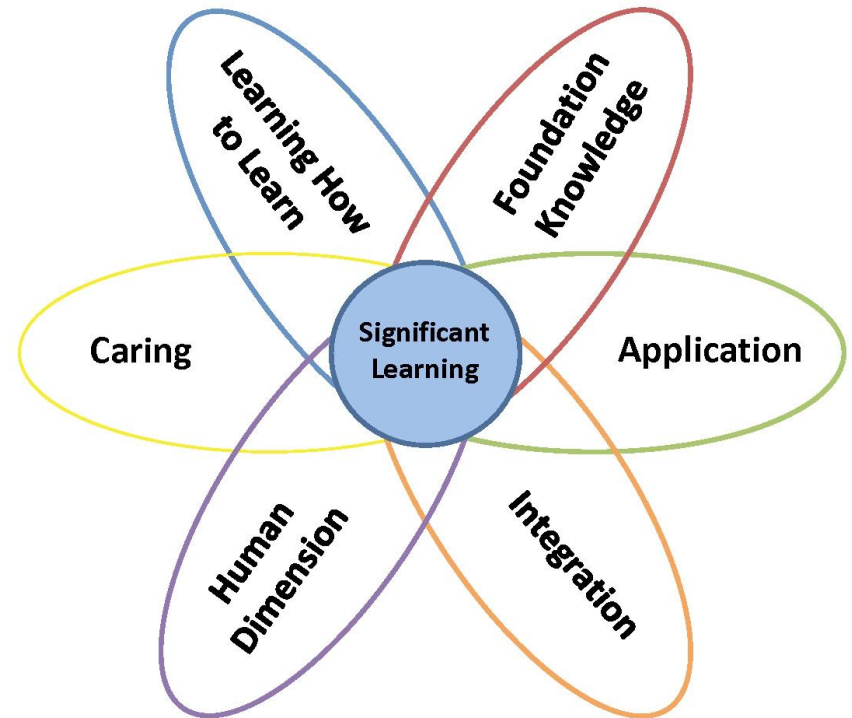


By Bud Blake

Getting Beyond Content

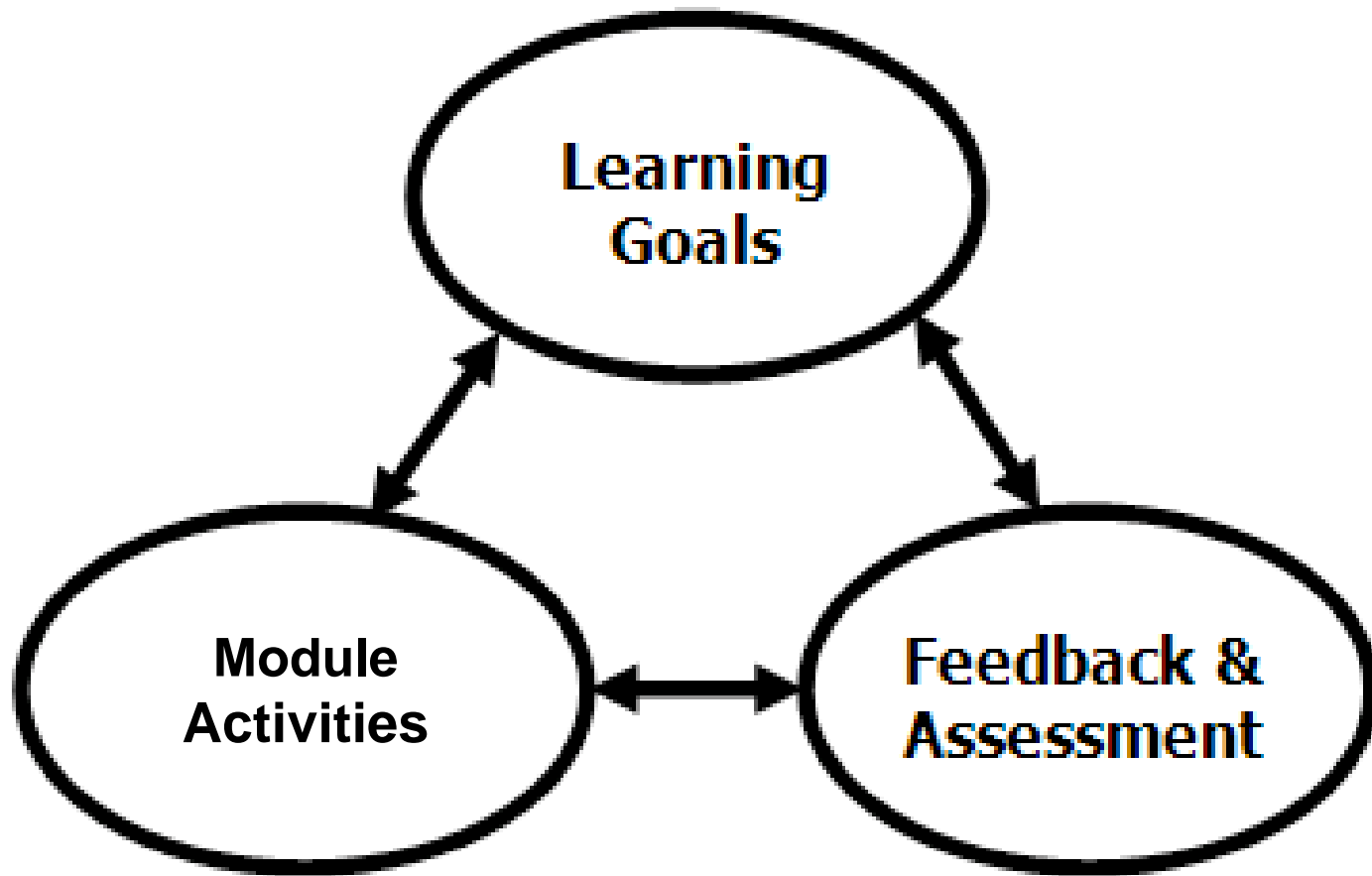


Bloom's Taxonomy (Revised)
(Kratwohl, David R. 2002)



Dee Fink: *Creating Significant Learning Experiences*
(Jossey-Bass, 2003)

Underpinnings of Design - Alignment



Backward Design

Q1

“What is it I hope students will have learned, that will still be retained and have value, persisting after this experience is over?”

Q2

“What would the students have to do to demonstrate or confirm that they had achieved those learning goals?”

Q3

“What activities would the students need to do to scaffold their skills to achieve and demonstrate those abilities (that may be assessed)?”

Traditional Content Creation

Choose Topics

Prepare Lectures Notes &
Create Slides

Write Test Questions

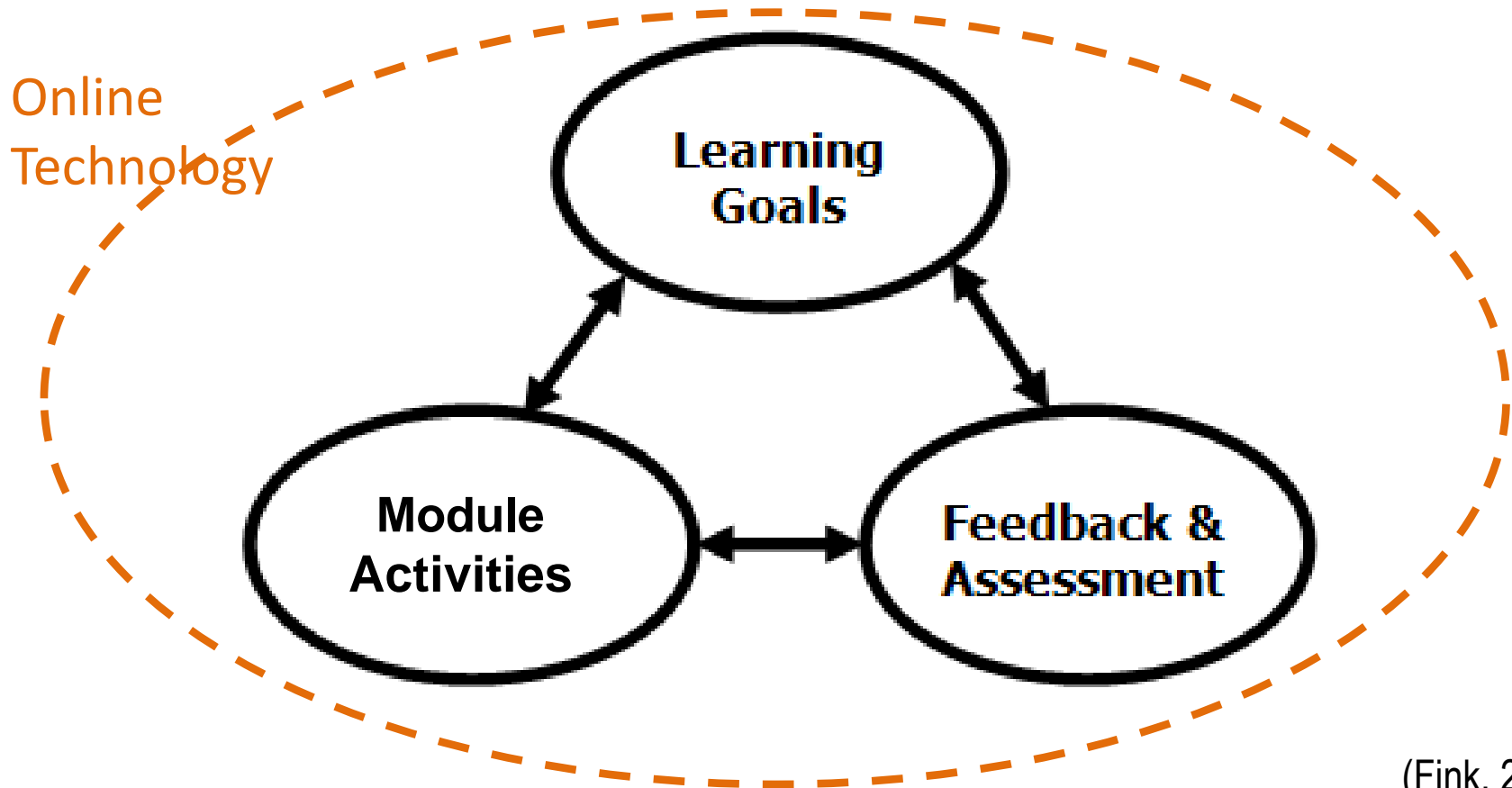
Backward Design

Learning Outcomes:
What should students learn or take away
from this module?

Feedback & Assessment:
How will the student know if are learning
what they need to know?

Activities Design:
Which learning activities will scaffold students
to the desired outcomes?

Student-Centred Design: Alignment and Integration



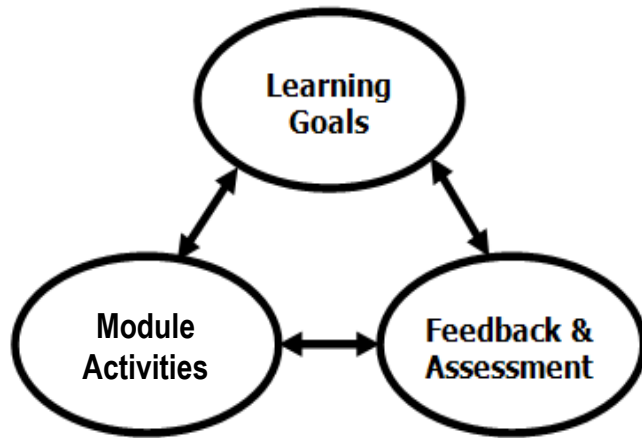
(Fink, 2013)

3. Sequencing and scaffolding

After this segment you will be ready to:

- Prepare an example of aligned outcomes, and assessments activities within a module
- Arrange the example components for scaffolded learning
- Distill components for an example online module as step one of storyboarding process

Alignment + Backwards Design



Learning Outcomes	Learning Activities	Assessments
1	3	2

Developing a Prototype – Module Level

- **Course Design** – overall integration and alignment of activities and assessments
- **Module Design** – set of resources activities – (ie a weekly unit can include an introduction, explanation, demonstration, practice and assessment...)
- **Learning Object Design** – an individual object can contain all/some of these elements.

Example of Backwards Design

Learning Outcomes

Apply concept that “sensory stimuli are converted to electrical signals” to predict biological processes

Relate to human dimension – how do humans experience this physically?

Learning Activities

“Hook” intro

Watch video **lecturette** with real life example to explain foundational concept

Use online **interactive learning object** to explore physiological processes

Assessments

In-line video quiz questions to check for understanding

Individual MCQ problem set linked to interactive learning object

Review case problem and identify likely response to example stimulus

Example Check for Alignment

Learning Outcomes

Apply concept that “sensory stimuli are converted to electrical signals” to predict biological processes

Relate to human dimension – how do humans experience this physically?

Learning Activities

“Hook” intro – pose an interesting question

Watch video **lecturette** with real life example to explain foundational concept

Use online **interactive learning object** for guided exploration of physiological processes

Assessments

In-line video quiz questions to check for understanding

MCQ problem set linked to interactive learning object

Review case problem and identify likely response to example stimulus

Alignment

Example sequencing and scaffolding

Learning Outcomes

Unit 1:

→ Apply concept that “sensory stimuli are converted to electrical signals” to predict biological processes

→ Relate to Human Dimension – how do humans experience this physically?

Watch **hook/lecturette** with animation to explain foundational concept

In-line **video quiz questions** to check for understanding

Interactive learning object for guided exploration of physiological processes

MCQ problem set linked to interactive learning object

Additional scaffolding?

Examples?
Resources?
Guides?

Review **case problem** and identify likely response to example stimulus

Advanced Design Strategies

To optimize learning transfer let's borrow from learning theory:

- Are concepts repeated to reinforce the "practice" effect?
- Are ideas and concepts shown in different contexts?
- Are additional technical skill supports or resources required to achieve goals included?
- Are example practice activities or assessments as "authentic" as possible?

expert ›

Break Out: Module Prototyping Activity

Teams will need to quickly identify for a practice exercise:

- **Two learning outcomes** from your proposal
- **Two activities (minimum)** that would support learning to achieve the outcomes
- **Two formative assessments (minimum)** that link back to that example outcomes.

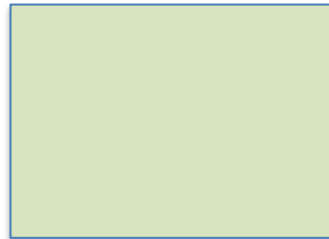
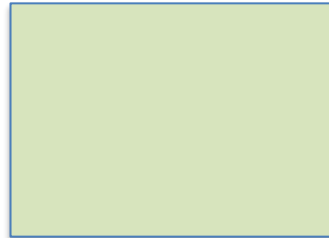
(15 minutes)

Breakout Teams Will Use the PowerPoint Template

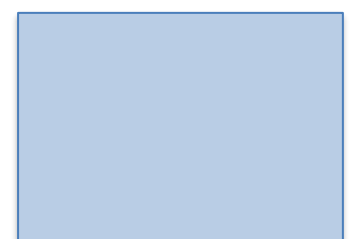
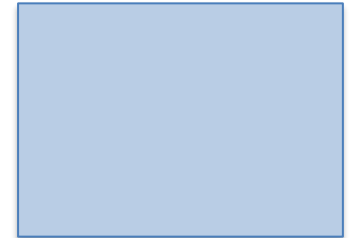
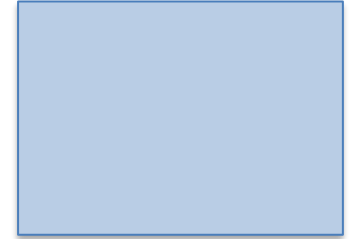
Learning Outcome



Learning Activities



Assessments



Step 1: Add text to LO boxes. When complete move on to Assessment boxes and then Activities. (Right click on box and select 'edit text.' Add more boxes as needed.)

Learning Outcomes

Apply concept that “sensory stimuli are converted to electrical signals” to predict biological processes

Relate to human dimension – how do humans experience this physically?

Learning Activities

“Hook” intro

Watch video **lecturette** with real life example to explain foundational concept

Use online **interactive learning object** to explore physiological processes

Assessments

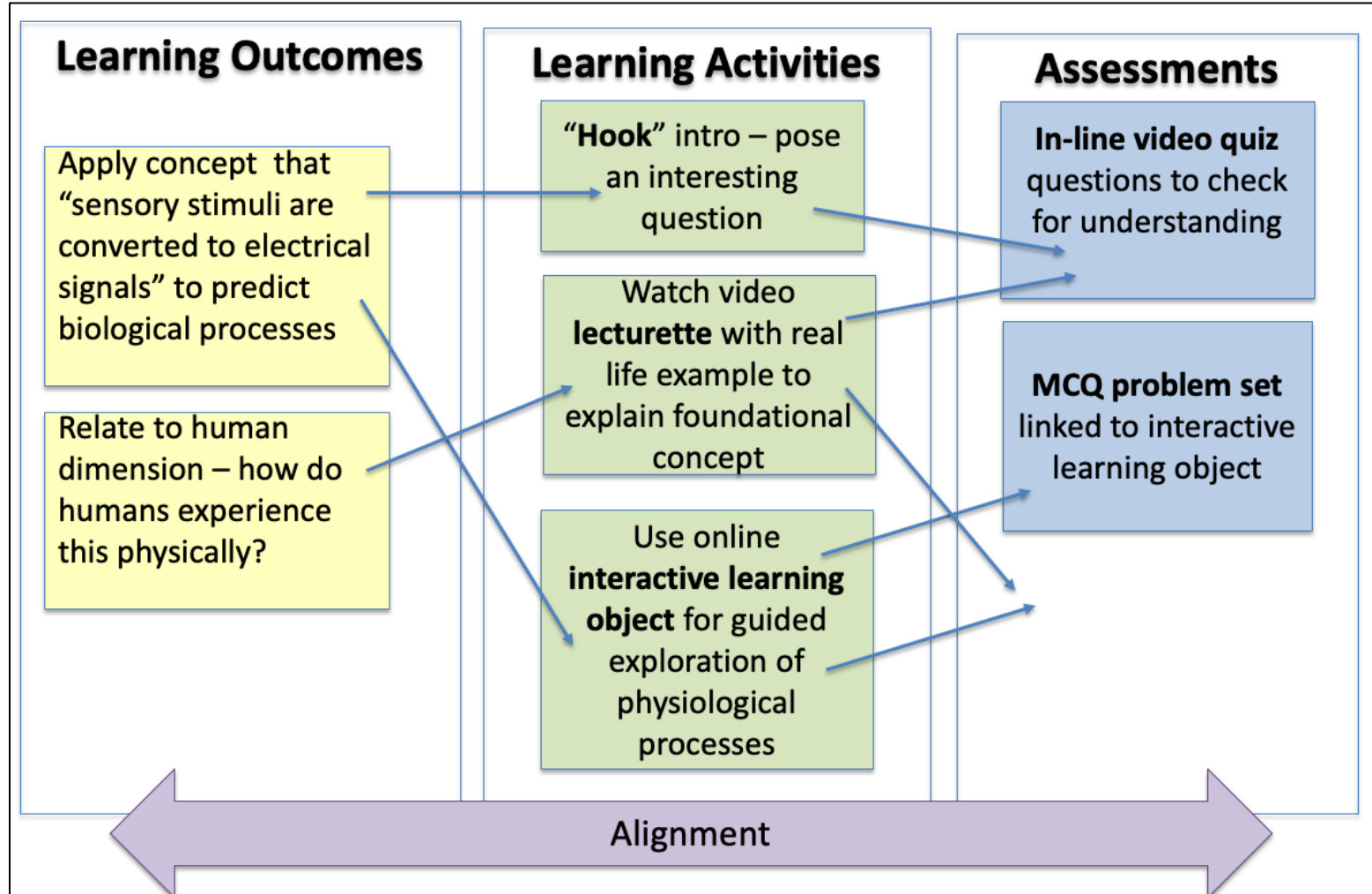
In-line video quiz questions to check for understanding

Individual MCQ problem set linked to interactive learning object

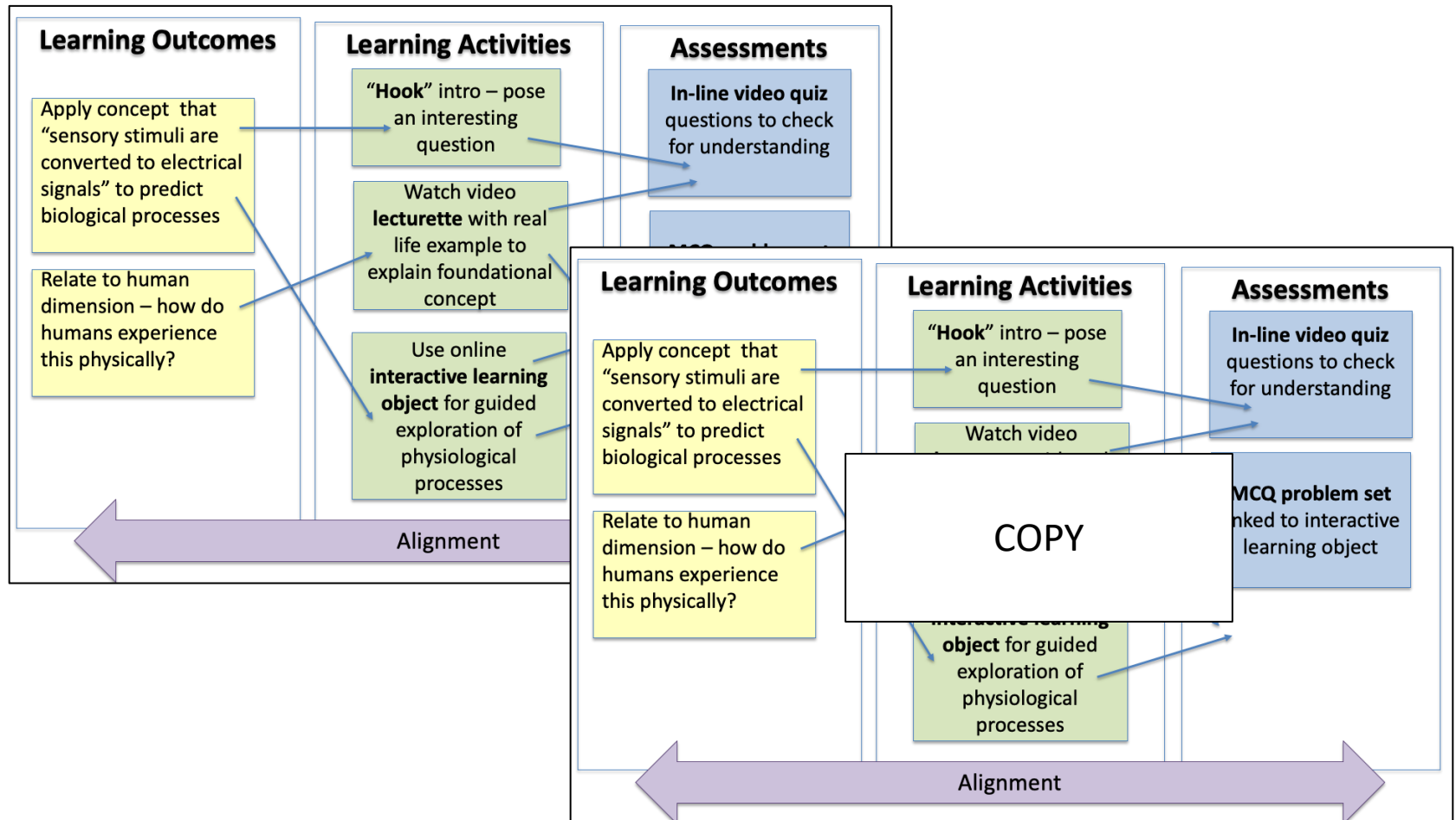
Review case problem and identify likely response to example stimulus



Step 2: Copy and move the arrows provided to check for alignment. Be sure that each outcome points to at least one activity and assessment.



Step 3: Copy the Step 2 full PPT slide and paste to have a new copy to work with for the Step 3. (Right click on full slide and select 'copy'.)



Copy paste boxes in order of how you envision the content being placed in order in the module. Consider additional scaffolding needed to build skills and guide learning through aspects students commonly find challenging.

Learning Outcomes

Unit 1:

→ Apply concept that “sensory stimuli are converted to electrical signals” to predict biological processes

→ Relate to Human Dimension – how do humans experience this physically?

Watch **hook/lecturette** with animation to explain foundational concept

In-line **video quiz questions** to check for understanding

Interactive learning object for guided exploration of physiological processes

MCQ problem set linked to interactive learning object

Additional scaffolding?

Examples?
Resources?
Guides?

Review **case problem** and identify likely response to example stimulus

Working as a Team

- 1) Identify a participant to work with the PPT (share their screen and write down the outcomes, assessments and activities as brainstormed by the group).
- 2) Identify a note-taker to capture and expand upon the ideas of the group.
- 3) Identify a time-keeper to keep the group on track.

The Logistics

Teams as identified in the pre-work survey will be placed in Teams Breakout Rooms.

- Locate the [PPT for your template from URL provided](#)
- Locate instructions provided in slide notes
- Work through a three-step process and be ready to report back on what you learned!

Debrief on Design Process

- Did everyone agree on the components and the sequence?
- Were alternatives discussed?
- Is this a methodology you can replicate to articulate overarching design approach?