THE UNIVERSITY OF BRITISH COLUMBIA
Faculty of Education

Master of Educational Technology Program

Cultural Diversity and Ability

Inclusive Makerspace Challenge

Overview of the challenge

Learners will design a way-finding and inclusively immersive museum experience for visitors of **all abilities**.

Materials and Resources Required

No Tech Tools can include (but are not limited to)

- cardboard
- glue
- scissors
- string/yarn/twine
- construction paper
- popsicles
- pompoms
- pipe cleaners
- tape
- recyclable items
- bbq skewers
- tooth pics
- straws
- playdough
- clothes pins

Low Tech Tools can include (but are not limited to)

- Ozobots
- Cublets
- Beebot
- Code-a-pillar
- Sphero
- Tinkercad

- DoInk
- Animation Creator
- Flip-a-Clip
- StopMotion Recording
- Garageband
- iMovie

High-Tech Tools can include (but are not limited to)

- 3-D printer
- Sphero
- Makey Makey
- Dash and Dot
- Ollie

Note: many of the low-tech tools can also be combined with other educational technology tools to redefine the inclusive makerspace challenge using technology in innovative and critical ways.

It is also recommended to explore and discover digital tools and robots to be used in critical and creative ways.

Inclusive Maker Challenge Instructions

The ROM in Ontario (can substitute this task with your local Museum or Science Center such as Science World in British Columbia) provides tactile

exhibition components with raised letters and braille labels that are “scattered” throughout the museum or a special exhibition – for visitors with full sight one looks around and sees them – or simply comes across them over the course of a visit.

You are to design a way to improve the museum experience for visitors of **all abilities**, in particular, with regard to way-find as well as individual experiences with museum displays.

Utilize the maker materials to design your prototypes for creating a completely inclusive, diverse, accessible, equitable, immersive, decolonized, and anti-racist experience for all visitors.

Be prepared to move your ideations to execution through the design of a prototype and then into the testing phase of your prototype.

Use the lesson plan templates (printable design planning sheet and Tinkercad Design Thinking Process- Digital Process) to ‘make’ this multi-sensory, multi-accessible, EDIDA focused museum experience.

Critical Questions for Consideration

a) How will you ensure that the multi-sensory, and multi-accessible museum way-finding and interactive experience is inclusive of all peoples of all abilities?
b) How will you ensure that all people are represented and included?
c) What do you need to consider to ensure the sustainability of the way-finding experience and the inclusive interactive experience?
d) What UN Sustainability goals align with your design?
e) What are you planning on making and why?
f) What problem(s) are you solving?
g) Why is this a problem?
h) What audience are you making this for?
i) How might this item benefit this audience?
j) What barriers do you foresee having?
k) What is your plan of execution?
l) How might you transition your prototype to become a plausible outcome of this challenge? How will this be communicated?

m) How might you showcase these experiences to a global audience?
n) What are your next steps?

Background/ Additional Information

The Royal Ontario Museum is a museum of art, world culture and natural history in Toronto, Ontario, Canada. It is one of the largest museums in North America and the largest in Canada. It attracts more than one million visitors every year, making the ROM the most visited in Canada.

Inclusivity Focus

When introducing the idea of inclusive and accessible way-finding and EDIDA focused museum experiences, you will want to consider your audience and systemic issues and barriers of classism, marginalization, and oppression and how both access to museums and use of museums has often been limiting and oppressive. These are sensitive topics and you will want to investigate these themes from a sensitive, responsive, and inclusive lens. Please check your own inherent biases in order to create a safe and welcoming learning environment for all of your learners to freely express their ideas and sound opinions pertaining to these designs.

No Tech, Low-Tech, High-Tech Options

When designing this multi-sensory and multi-accessible way-finding and interactive museum experience. It is imperative that you consider all ages, abilities, races, cultures, religions, and genders to ensure you are creating experiences that are accessible, inclusive, representative, and engaging to all individuals. See the materials list for options of no-tech, low-tech, and high-tech options for this challenge.

Extensions

There are endless opportunities for ways to extend the design of multi-sensory and multi-accessible way-finding and inclusive immersive museum experiences for all peoples. To share your own ideas and examples, tweet #UBCMETmakerchallenge.