

## **Overall 4-hour Zoom Training Goal**

### **Goals for Learning by Making**

*The Learning by Making Program Goals supported by LbyM teachers*

Innovation 4: Deepening teacher expertise and agency in STEM.

Develop teacher self-efficacy as we transition from a face-to-face model to one that is

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internet-mediated

## **1. Welcome**

### **Goals for Learning by Making**

*The Learning by Making Program Goals supported by LbyM teachers*

Innovation 4: Deepening teacher expertise and agency in STEM.

Develop teacher self-efficacy as we transition from a face-to-face model to one that is internet-mediated

## **2. Water & Soil Experiment**

### **Goals for Student Learning**

*What students need to know to help meet the goals for students learning*

Innovation 1: Helping students to make sense of phenomena and design solutions to problems

Students are able to explain why they are performing a task and are able to connect activities to broader science and engineering learning goals.

Innovation 2: Supporting three-dimensional learning.

Students are incited to engage with all three dimensions of a learning.

### **Goals for Teacher Learning**

*What teachers need to know to help meet the goals for students learning*

Innovation 1: Helping students to make sense of phenomena and design solutions to problems

Teachers can explain guiding questions or engineering problems related to the LbyM curriculum at a lesson level.

Innovation 2: Supporting three-dimensional learning.

Teachers demonstrate confidence in and quick recall with respect to three-dimensional learning.

Innovation 4: Deepening teacher expertise and agency in STEM.

Teacher's STEM expertise are expanded to help them master as much of the LbyM curriculum content as possible

Teachers are empowered to voice their thoughts and needs—both to the curriculum developers and to each other.

### **3. LbyM Neighborhood FieldTrip**

#### **Goals for Student Learning**

*What students need to know to help meet the goals for students learning*

Innovation 2: Supporting three-dimensional learning.

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Students are incited to engage with all three dimensions of a learning

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#### **Goals for Teacher Learning**

*What teachers need to know to help meet the goals for students learning*

Innovation 2: Supporting three-dimensional learning.

Teachers demonstrate confidence in and quick recall with respect to three-dimensional learning.

Innovation 4: Deepening teacher expertise and agency in STEM.

Teachers are empowered to voice their thoughts and needs—both to the curriculum developers and to each other.

## Goals for Teacher Practice

*Supporting teachers manifest learning in classroom practices, incl. expected student practices*

Innovation 2: Supporting three-dimensional learning.

Teachers incorporate novel approaches around pedagogical strategies for creating a classroom environment that engages students in three-dimensional learning.

## 4. Connect LbyM Field Trip to Career Resources

### Goals for Student Learning

*What students need to know to help meet the goals for students learning*

Innovation 5: Fostering STEM career pathways

Students build connections between what students do in the classroom and what STEM career practitioners do in the field.

### Goals for Teacher Practice

*Supporting teachers manifest learning in classroom practices, incl. expected student practices*

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Innovation 5: Fostering STEM career pathways

Teachers are prepared for implementing the CTE events with their students and for integrating the experience of CTE events into the curriculum

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