

### **Workshop Prep & Objectives**

Prep time: 10 – 15 minutes

The workshop aims to explore how teams can use mapping tools to identify key opportunities or solution pathways to problems, and visualize the complexity and interconnectedness of them. Students will learn how to utilize decision making tools like "down selection" to weigh the value of an idea against another, and to identify and select the best solutions pathway for a problem.

- Display the lesson slides for the class and create a discussion about what they already know about mind maps and introduce "down selection" as a decision-making tool.
- The workshop activity is best done on a large whiteboard or a posterboard using sticky notes that can easily be displayed for groups to work together in open discussion.
- Follow the instructions in the lesson on how to create a mind map and how to decide on a winning idea. The slide notes at the bottom of each slide will have instructions on how to do each step.

### **SDG & Curriculum Alignment**

Prep time: 10 - 15 minutes

#### **Key Learning Outcomes and Curriculum Alignment:**

- Science Earth and Human Activity: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. Things that people do can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.
- English Language Arts and Literacy: Participate in collaborative conversations with diverse partners about topics and texts. Follow agreed-upon rules for discussions. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning.
- Social Studies People, Places, and Environments: The study of people, places, and environments enables us to understand the relationship between human populations and the physical world.

#### **SDG Alignment**









#### Flexible and adaptive lesson

Lesson plans are designed to be flexible and responsive to the evolving needs of your classroom. Lessons are editable and customizable to meet the different individual student and classroom contexts. A PowerPoint version with teacher instructions and a printable PDF lesson are available for download.

### The Workshop

Lesson duration: 45 – 60 minutes

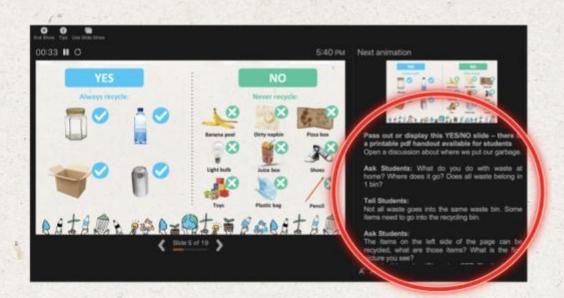
- Split into groups of 3-5 and prepare a posterboard or whiteboard with sticky notes for the exercise.
- Read the "Waste Challenge" handout and select a problem aspect for the mind mapping exercise or continue with the topic from Workshop 1 (recycling, waste workers, collection and sorting, etc.).
- Groups will create a mind map to examine the interrelated aspects of the problem they are looking to solve, and all potential ideas for solution pathways.
- When finished with the mind map, groups will write their solution ideas on sticky notes and work through a selection exercise to weigh the value of ideas against another, and to identify and select the best solution pathway for a problem. Have the groups present their findings to the rest of the workshop.

#### Prepare the PowerPoint presentation

When you are ready to present the lessons to your class click on **Slide Show** on the top menu bar then select **Presenter View.** In Presenter view, you can see your notes as you present while the audience see only your slides.

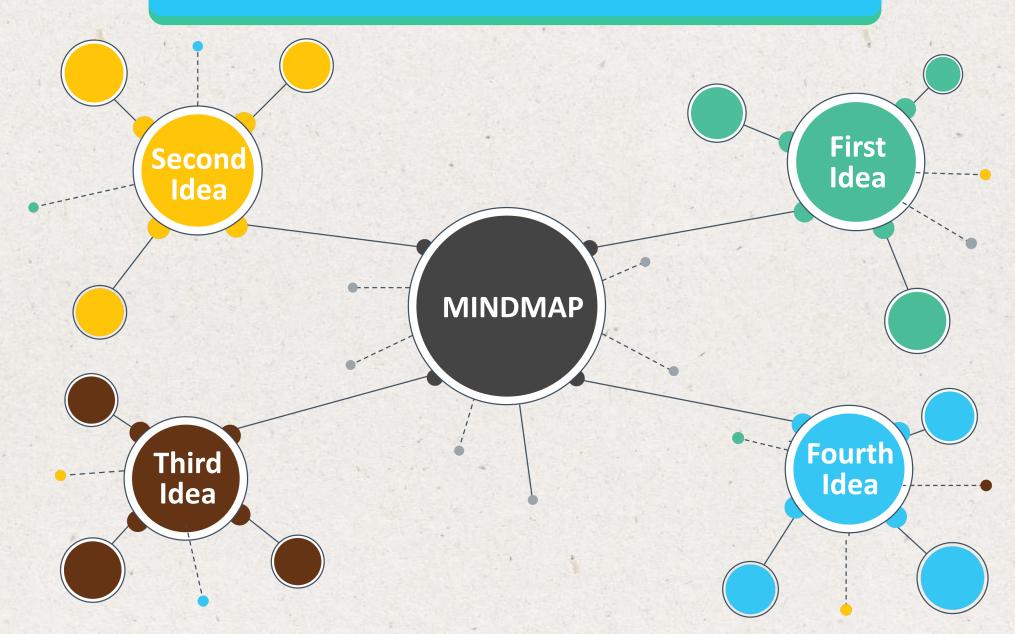


The notes appear in a pane on the right. The text should wrap automatically, and a vertical scroll bar appears if necessary. You can also change the size of the text in the Notes pane by using the two buttons at the lower left corner of the Notes pane.

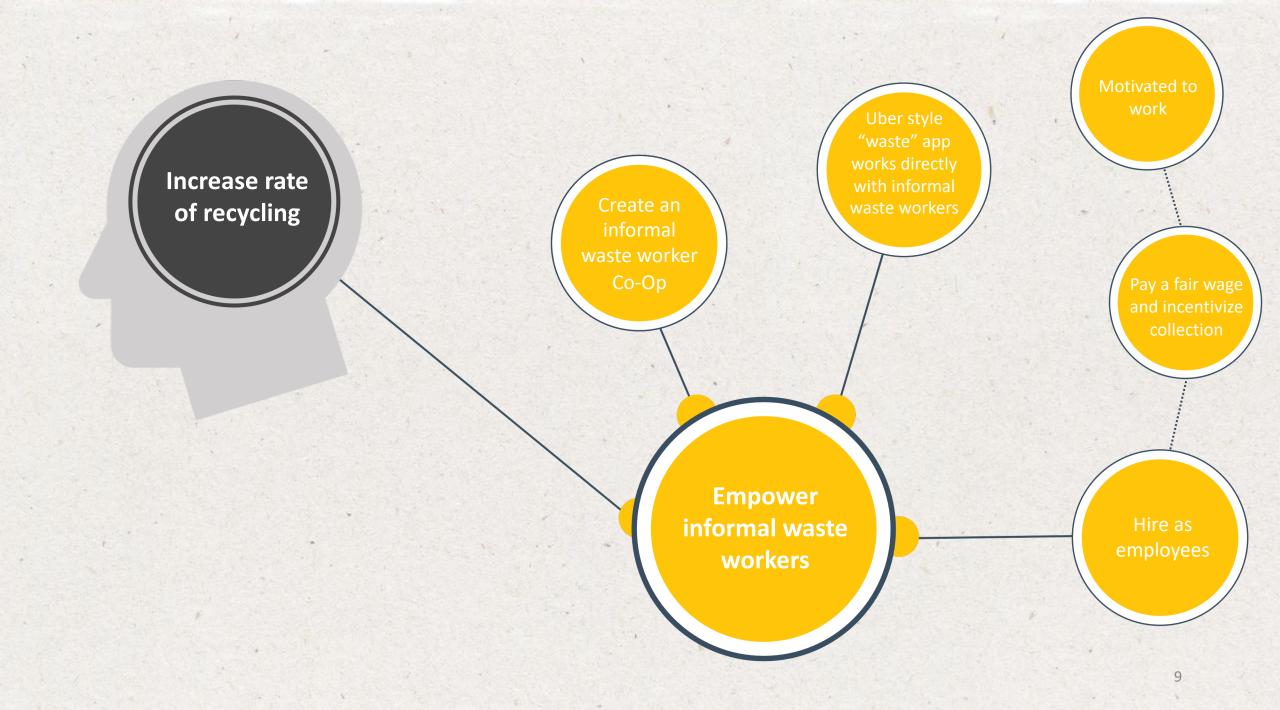


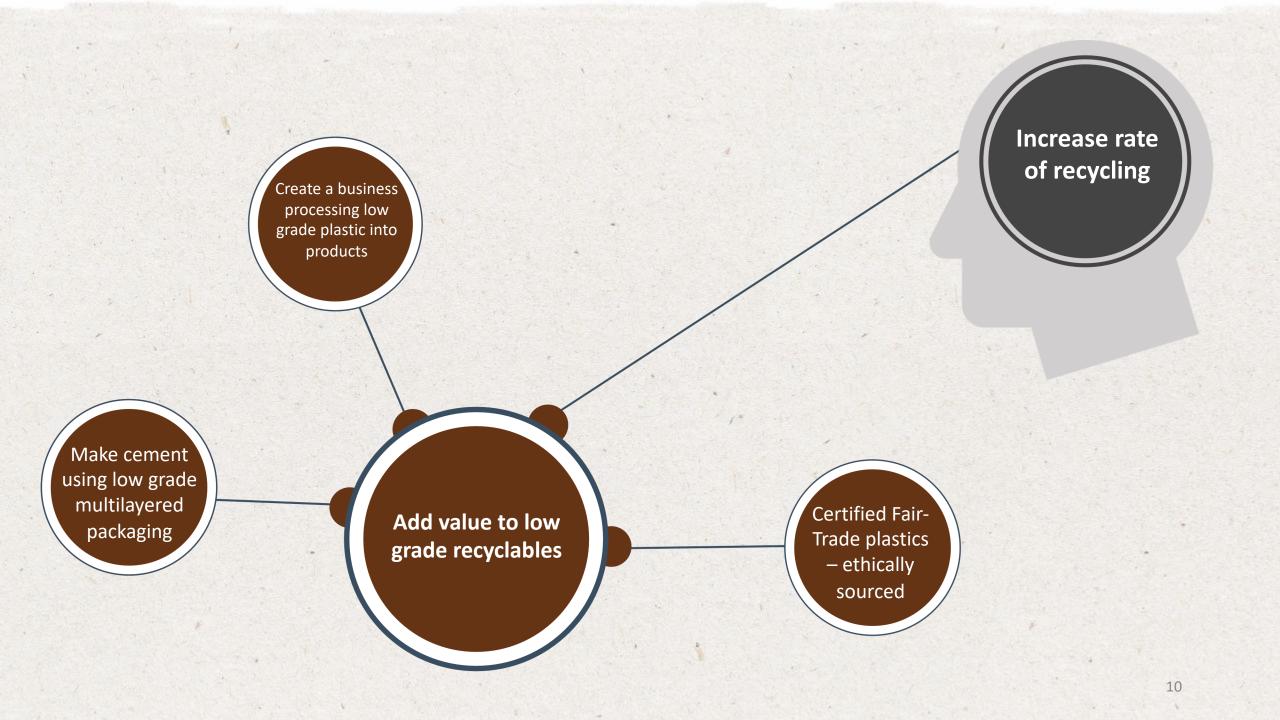


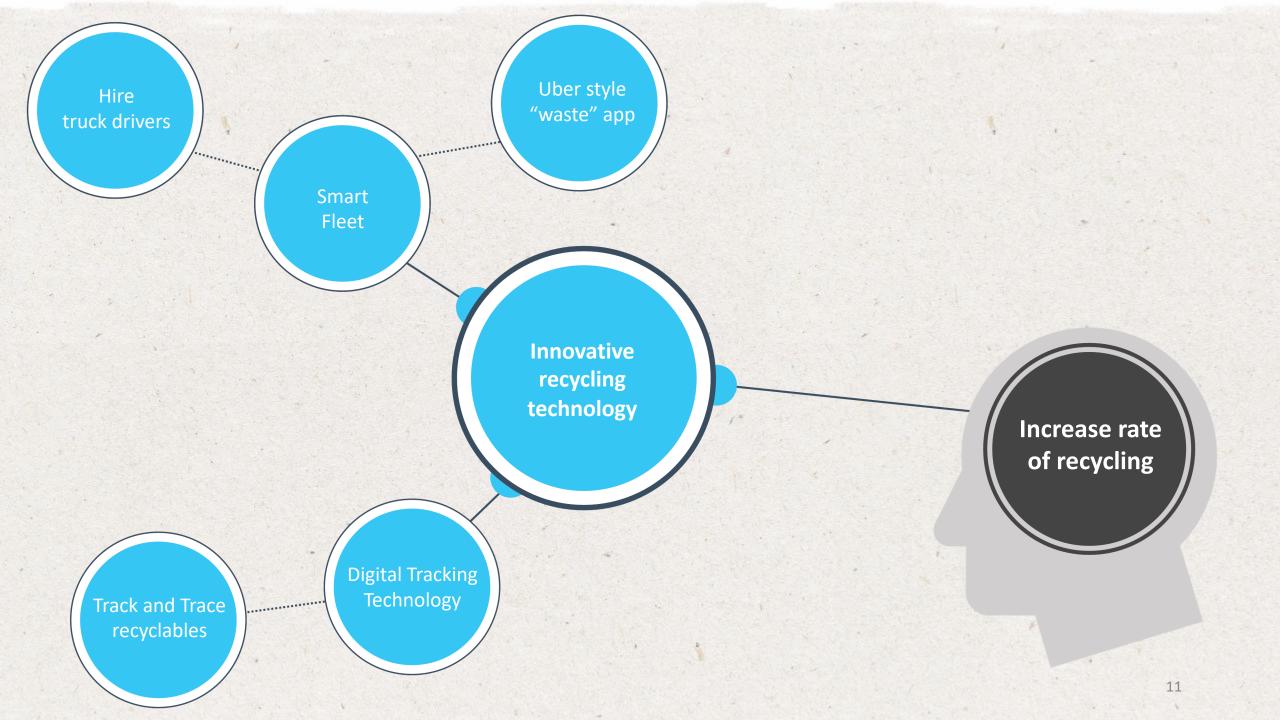
# What is a mind map?

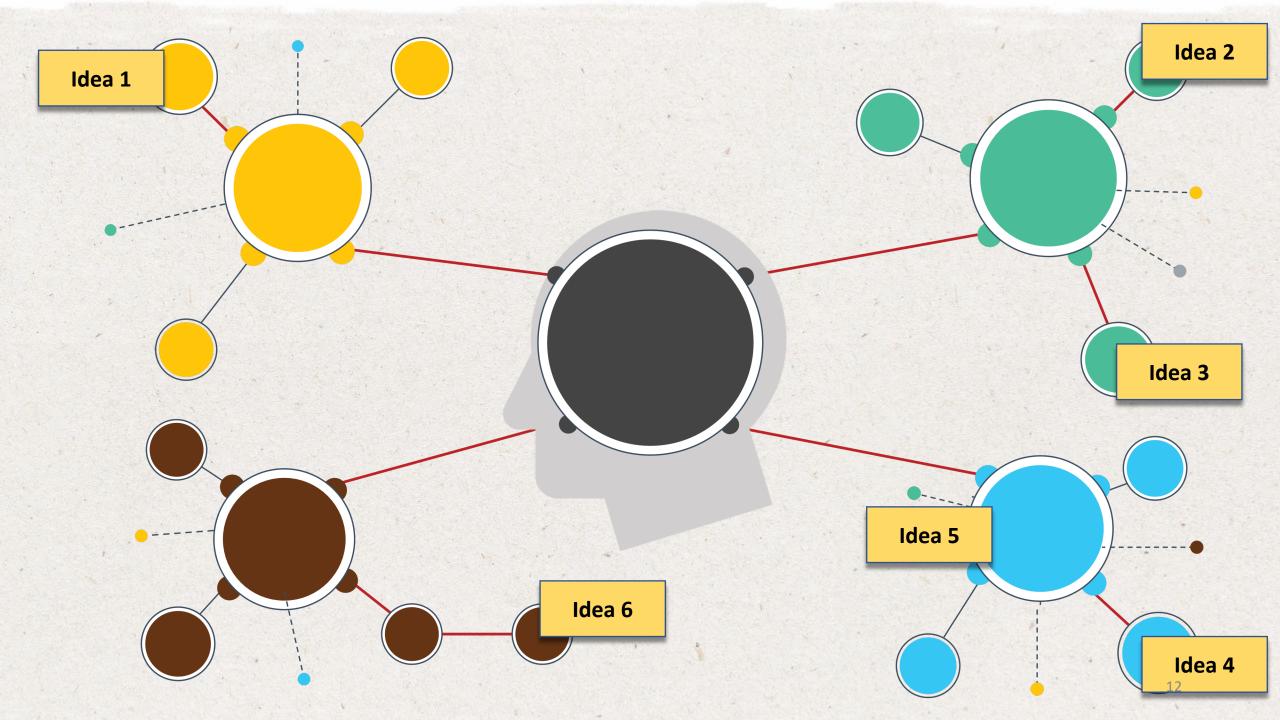








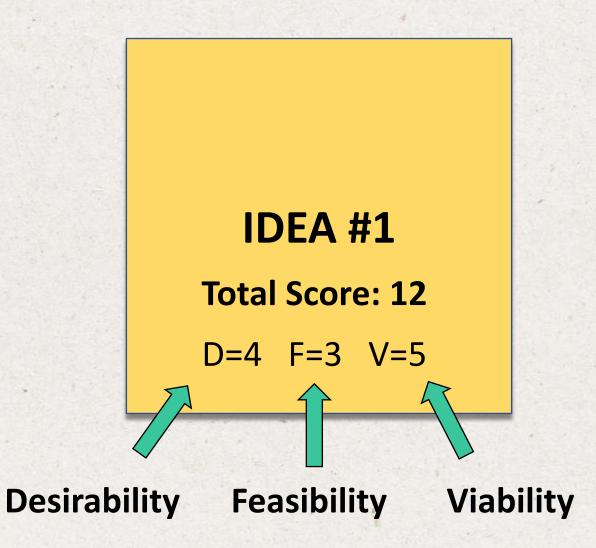




## **Down Selection Exercise**

**IDEA #1** IDEA #2 **IDEA #3** 

# **Rate 1-5**



## **Choose the highest score**

IDEA #1

**Total Score: 12** 

D=4 F=3 V=5

IDEA #2

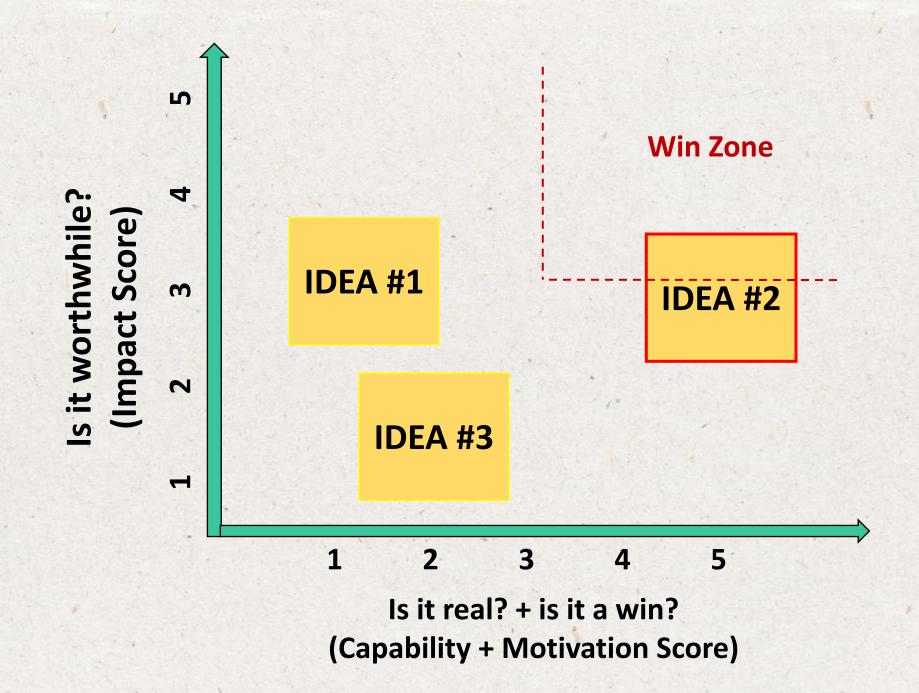
**Total Score: 10** 

D=3 F=2 V=5

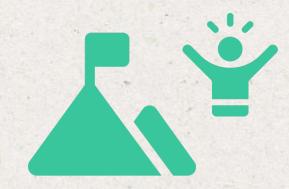
**IDEA #3** 

**Total Score: 7** 

D=3 F=2 V=2



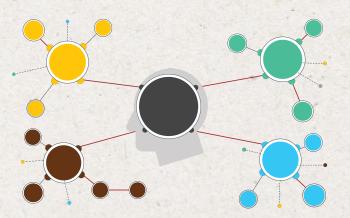
1. Choose an aspect from the "waste challenge" scenario



Identify the key ideas in the mind map and write them all down on sticky notes



Create a mind map to visualize potential solution pathways



4. Work through a "down selection" exercise to choose the best solution

