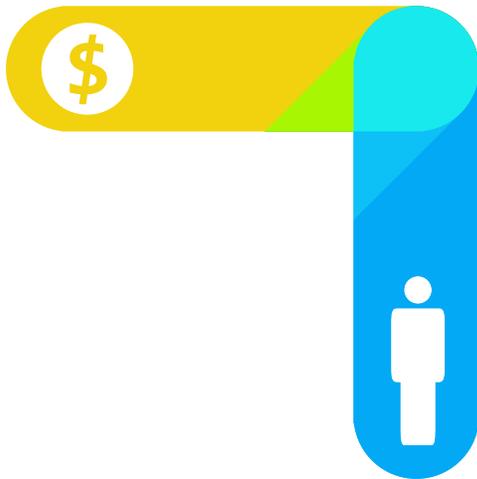


Sustainable Enterprise

Certificate



Students address a problem they observe in their community, develop a business plan, and start a new enterprise

Table of Contents

Course Introduction ii

 Overview ii

 Skills and Knowledge..... ii

 Grade Level..... ii

 Background and Resource Material..... iii

 Activities..... iii

 Assignments iii

 Assessments iii

 Extensions iii

 Handouts..... iii

 Module Content..... iii

 Curriculum Matrix: Sustainable Enterprise Certificate iv

 Sample Teacher Instrucional Plans..... vii

 Sample Lesson Page xi

 Instructional Standards Covered..... xii

 Advance Lesson Preparation xxiv

 Assessment & Certification xxvi

 Evaluation xxvi

 Contact Information xxvii

 Sustainable enterprise Certificate Pre & Post Test xxviii

 Sustainable enterprise Certificate Pre & Post Test – Teacher key xxxi

Module 1.0: What is a Sustainable Enterprise? 1

Lesson 1.1: What is a Sustainable Enterprise?..... 2

Lesson 1.2: Comparing Conventional & Sustainable Enterprises 18

Module 2.0: Stories of Sustainable Enterprise.....35

Lesson 2.1: The Values and Complexities of Sustainable Enterprise 36

Lesson 2.2: Investigating Sustainable Enterprises 45

Module 3.0: How to Make an Enterprise More Sustainable.....54

Lesson 3.1: Introduction to Eco Auditing 56

Lesson 3.2: Eco Audit Training 96

Lesson 3.3: Eco Audit Reporting & Presentation..... 118

Module 4.0: Designing a Sustainable Enterprise.....126

Lesson 4.1: Critical Thinking for Business Design 129

Lesson 4.2: Is My Idea a Good Idea? 141

Lesson 4.3: Business Description & Market Opportunity 153

Lesson 4.4: Rapid Prototyping..... 165
Lesson 4.5: Marketing, Operations & Management 171
Lesson 4.6: Financial Forecasting & Impact Assessments 184
Lesson 4.7: Investor Presentations & Business Plan Competition 201

Module 5.0: Sustainable Entrepreneurship..213
Lesson 5.1: Hire Teams & Develop Norm Groups 215
Lesson 5.2: Develop Workplan & Implement..... 228
Lesson 5.3: Completion, Reflection, Presentation, and Continuation 250

Module 6.0: Green Careers.....259
Lesson 6.1: Green Careers 257



Lesson 4.1 Overview

Estimated Time

Activity 1: 45 minutes (1 period)
Activity 2: 60 minutes (1-2 periods)

Standards Covered

CTE MSS: A2.8, C3.3, C4.0, C4.1, C4.2, C4.6, C6.0, C6.1, C6.4
CTE BF: A1.0
CCSS ELA:
Speaking and Listening: 1-2
CA History/Social Science:
Principals of Economics: 12.1.4, 12.2.3-8

Objectives:

 Students will be able to

- Develop and determine the viability of business ideas
- Identify a professional purpose that motivates them

Prep Time

- One hour to review lesson and design project structure

Handouts

- 4.1.1 Business Plan Outline
- 4.1.2 Wheeling - Is My Idea a Good Idea?
- 4.1.3 Identifying Sustainable Enterprise Opportunities

Materials:

- A projector
- Logbooks

Lesson 4.1: Critical Thinking for Business Design

In this module, students will develop a business plan for a sustainable enterprise, either individually or in small groups. The instructor guide below will offer several structures for this project to allow teachers to implement the plan within a range of schedules. In this first lesson students will develop ideas for enterprises that are economically, environmentally, and socially sustainable; begin evaluating the merits of their ideas; and prepare for the research stage of their business development. Teachers may also consider participating in external business competitions for students to gain real world experience presenting their business plans.

KEY WORDS

Design Thinking: a human-centered design process that is comprised of 5 distinct stages: empathize, define, ideate, prototype, and test

30-Second Message: also known as an elevator pitch, this clear and concise message gives the listener a focused understanding of a business idea. This is the capstone for lesson 4.2

Business Plan: a plan to develop a new initiative. A business plan is for both an internal audience, to reduce risk through research and planning when launching a business, and for an external audience, to attract the support of investors, lenders, employees, and key customers

Elements of Reasoning or Wheeling: a structured critical thinking system for business idea design and analysis, developed by Jane Lorand of the Green MBA program at Dominican University

PREPARATION

Read through Module 4. Review the Setting the Stage section to determine how you are going to structure the business plan project. See below for a range of options on the project structure. If relevant to your structure, determine the dates of student business plan presentations and begin outreach to guest “investors” who will assess businesses based on investor presentations. Make a class set of each Handout. Additionally, if you would like to lead the Optional Design Thinking Activity, review the activity in advance for room set up guidelines, and gather materials necessary for the wallet prototyping exercise, such as construction paper, tape, pens, scissors, aluminum foil, rubber bands, and paperclips.

Business Plan Project Options

This section suggests a range of options for implementation of Modules 4 & 5. Use these tools to plan out your instructional schedule and begin Module 4 by giving students an overview of the structure you have selected for designing and implementing a sustainable enterprise business plan.

- In Modules 4 & 5 students will work individually or in small groups (approximately 4 students per group) to develop and implement a business plan. Refer to Lesson 5.1 for resources on how to form project groups.
- The business plan project can be structured as a competition or as a conventional project. In either case, business plans and presentations can be evaluated by peers, instructors, and outside experts. Consider contacting local sustainable enterprises and business schools to recruit guest judges to provide feedback on the “Investor Presentations”.
- Also, external competitions are a good way for students to gain real world experience by presenting their business plans and potentially earning funding for their projects. Please note that entering external competitions will require advanced preparation for things like entry dates, fees and challenge requirements. A full list of external competitions can be found at the end of Module 4.
- Business Plan Project Components (Module 4): These can be completed individually or in small groups.
 - Step 1: Students develop ideas for sustainable enterprises and use critical thinking tools to determine if their idea is a good idea.
 - Step 2: Students complete the business plan project using the business plan outline and assignments.
 - Step 3: Students present their business plan in an “Investor Presentation”. This can be framed as a business plan competition to implement the winning business plan(s) in Module 5, in small groups or as a class project. Investor presentations are designed to secure support – in some cases financial. In this case, students may structure their presentations to win the business plan competition and secure support for implementation of their business in the next module.

- **Business Implementation Project:** In Module 5 students will launch and manage a sustainable enterprise. Instructors have a wide range of scheduling opportunities and constraints, so these two modules are designed to be adaptable for the following three suggested options:
- **Option 1:** Students will work together as a class or in small groups to conduct a short-term project with social and/or environmental benefits. It must be economically sustainable, meaning that it generates more money than it costs to produce. Basic examples include one-day events such as a car wash, bake sale, concert, or dance with the profits going to an environmental or social cause. Encourage students to be creative in their idea generation.
 - **Student example:** A group of five students at the Marin School of Environmental Leadership at Terra Linda High in California planned and organized an E-Waste collection day at their school and invited community members to contribute their electronic waste. This project diverted over 3,000 pounds of potentially hazardous waste from the landfill and raised funds for the School of Environmental Leadership.
 - **Option 2:** Small group implementation of business plans. Two semesters is ideal for implementation of this option, but it can be done in as little as 3 months. Module 5 assumes an implementation time frame of two semesters – one semester to write the business plans and one semester to implement the plans and launch a new initiative. If students write business plans in small groups, the groups can go on to implement their plan in Module 5, or judges can select one business plan for the whole class to implement. If students design business plans individually, we recommend that only a selection of 5-8 business plans (depending on small group and class size) are implemented by small groups. The selection of business plans for implementation and groups can be based on a number of criteria.
 - **Selecting business plans for implementation:** Business plans can be selected by the panel of experts that evaluate the investor presentations, by the instructor, by the students, or by evaluation criteria from all three. Sample evaluation forms are included in the Investor presentation lesson at the end of this module.
 - Students can also participate in external business plan competitions. A list of external competitions can be found at the end of Module 4.
 - **Student examples:** EAT GRUB is a youth venture to install edible gardens in backyards. Share this story and video with your students for inspiration: <http://storytellersforgood.com/project/eat-grub/>
 - **Option 3:** Design and implement an ongoing school venture together as a class. This option will create a foundation and launch a student-run business that can be continued for generations of students to come.
 - **Student Example:** Visit <http://californiabountiful.com/features/article.aspx?arID=599> for an article on Grant High School's Eat from the Garden salsa business. If you

plan to use Option 3, we suggest students read this article to prepare for writing their collective business plan.

- The business plan implementation option that you select for Module 5 will influence the types of business ideas developed in Module 4 for individual or small group business plans.
- A note on selecting groups: Ideally the process of selecting a team will be student-driven, but instructors will have to evaluate the dynamics of their group to avoid trampled feelings, which can be particularly detrimental to students who have a pessimistic outlook – interpreting setbacks to be permanent, personal, and pervasive.¹ Here are some ideas on selecting groups to either develop or implement business plans:
 - If students work in small groups to develop business plans, rather than individually, consider having students develop ideas individually and then select ideas to be further developed in groups after each student presents a **30 second message** on a business idea. The **30-second message** activity will be the capstone of lesson 4.2. After all messages are presented, ask each student to post their message on the wall and give each student three post-it notes or stickers. Ask students to stick their post-it notes/stickers on the 3 business ideas they would be most interested in developing, based on the elevator pitches made by their peers. Select 5-8 business ideas to expand through the business plan exercise in Module 4 (ideally in groups of 4) based on the greatest level of interest from peers, and assign students to groups based on interest.
 - Grouping Strategies:
 - Allow students to privately rank their choices and then arrange students into groups based on your understanding of the personality preferences, skills, and dynamics of the group and individuals.
 - Group students by similarity of their business ideas.
 - If students work individually to develop business plans, engage students in an application and hiring process once 5-8 business plans are selected for implementation. Allow the business idea or plan designer to hire their team. Students should apply for the businesses they want to work for using the cover letter and resume guides in Module 6 as a resource. Additionally, students should use the interview guide provided in Module 5 (see Interview Guide Handout) when preparing for their interviews. Instructors will ensure that everyone gets hired by instructing hiring managers to complete evaluation forms (see Job Description, Interview, Evaluation Handout) with scores rather than delivering a yes or no to their peers. Instructors can then review evaluation information and inform hiring managers and peers of who has been hired for which company.

¹ Seligman, Martin; *Learned Optimism: How to Change Your Mind and Your Life*; Vintage Books; 2006

SETTING THE STAGE

- Give students an overview of the structure and schedule for Modules 4 & 5. Share student examples of the option you've chosen for business implementation.

Business Plan Outline

- Distribute and review with the class the outline of the business plan in Business Plan Outline Handout. Students will be responsible for completing each of the elements of the business plan included in the outline. You may want to add due dates for each element to the Business Plan Outline.

ACTIVITY 1: WHEELING

- It's time to begin **business planning**! In Lesson 1, students will develop sustainable enterprise ideas and analyze whether their idea is a good idea using the **Elements of Reasoning**, a critical thinking system. The **business planning** process in Module 4 begins by reviewing the list of problems and opportunities listed in the Sustainable Enterprise Ideas section of student Logbooks. Ask students to select approximately 4 ideas on new initiatives to address pressing social and/or environmental problems and opportunities that are most exciting to them. Students will begin analyzing these ideas with a structured critical thinking system designed by Jane Lorand, co-founder of the Green MBA program at Dominican University. This critical thinking system, referred to as the **Elements of Reasoning** or **Wheeling**, will help students to develop and analyze the viability of enterprise ideas.
- Distribute and review Wheeling – Is My Idea a Good Idea? Handout, an overview of the Critical Thinking tools students will use to evaluate whether their idea is a good idea.
- Let's Begin! Wheeling – Steps 1-3: Problems, Opportunities, and Higher Purpose:
 - Start with Identifying Sustainable Enterprise Opportunities Handout for instructions and an activity to help students narrow and refine their top list of Sustainable Enterprise Ideas. This is an extension of the work students began in Module 1 to generate ideas for business opportunities. After reviewing the "Sustainable Enterprise Ideas" from the beginning of their Logbook, ask students to focus on around 4 of their top ideas about problems and opportunities for sustainable enterprises.

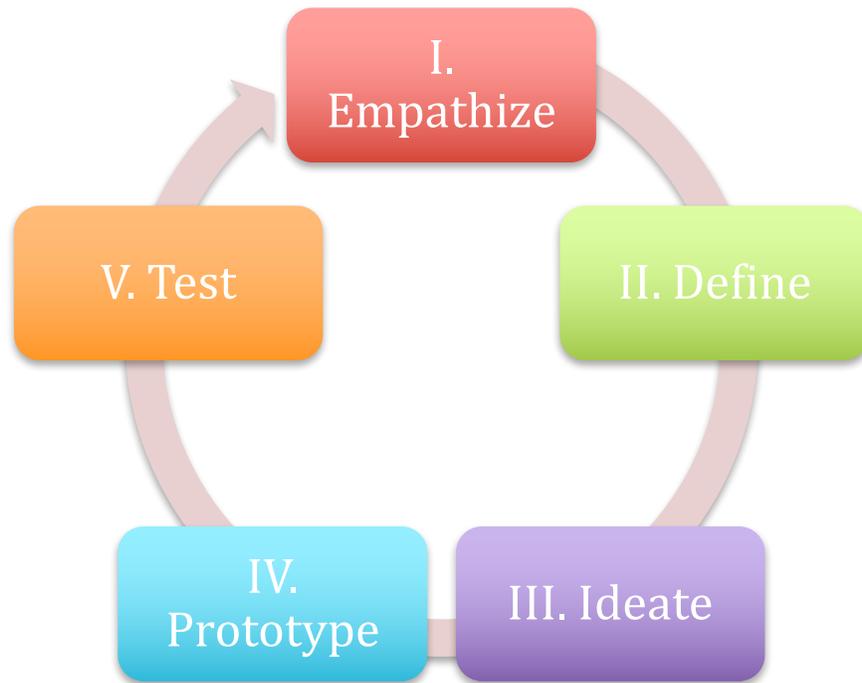
ASSIGNMENTS



Have students complete the activity on Identifying Sustainable Enterprise Opportunities Handout for homework and come to class with at least 2 business opportunities that they want to explore more. The opportunities selected should align with their higher purpose, skills, and the timeframe available for this project. (You may want to emphasize that business ideas should be viable for short term implementation, or allow students to plan for longer term initiatives such as launching a vertical garden company or an electric car company.)

ASSESSMENTS

- Review student Identifying Sustainable Enterprise Opportunities Handout 4 for identified problems, opportunities, and higher purpose.



ACTIVITY 2: DESIGN THINKING

Design Thinking is a tool created by Stanford scholars to uncover innovative solutions to our world's most complex challenges. This is achieved through the repetition of strategic ideation, rapid prototyping, and feedback.

- ²To gain a better understanding of the Design Thinking process, watch the following 4 minute video: <http://www.whatisdesignthinking.org>
- In Activity 2 of this lesson, students will have the opportunity to go through the design thinking cycle through completing an example Wallet Project.
- **The Wallet Project** is a project-based, team-facilitated design thinking activity that was developed by Stanford's d.school to guide students through the full design thinking process in a short time frame. The Wallet Project encourages students to use design thinking principles through an action-oriented, learning experience.
- Wallet Project: https://dschool.stanford.edu/groups/designresources/wiki/4dbb2/The_Wallet_Project.html

² Image designed by SEI