FUTURELAB+

AG/ENVIRONMENTAL

Community Science

Final Artifact

Developed in partnership with:

Discovery Education and Ignited

In this Lesson Plan:

Print the **Teacher Section** →

This document is separated into two sections, For Teachers [T] *and* Student Resources [S]*, which can be printed independently.*

Select the appropriate printer icon above to print either section in its entirety.

Follow the tips below in the Range field of your Print panel to print single pages or page ranges:

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Print the **Student Section** →

Cover Image
Bacteria in a water sample is a potential source of environmental DNA (eDNA).

AG/ENVIRONMENTAL / COMMUNITY SCIENCE

Final Artifact

ACTIVITY DURATION

Eight class sessions
(45 minutes each)

DRIVING QUESTION

How are crowdfunding campaigns used to build support for a new service or product?

ESSENTIAL QUESTION

How can I communicate complex ideas in an engaging and succinct manner?

OVERVIEW

Obtaining funding for project ideas is a key step in product development. Entrepreneurs may find themselves pitching their ideas in grant applications, through presentations to venture capital groups, or on one of the many crowdfunding platforms online. Developing a strong pitch and securing funding requires a deep understanding of how to connect funders emotionally to a project idea and how to explain complex proposals in a clear and concise manner.

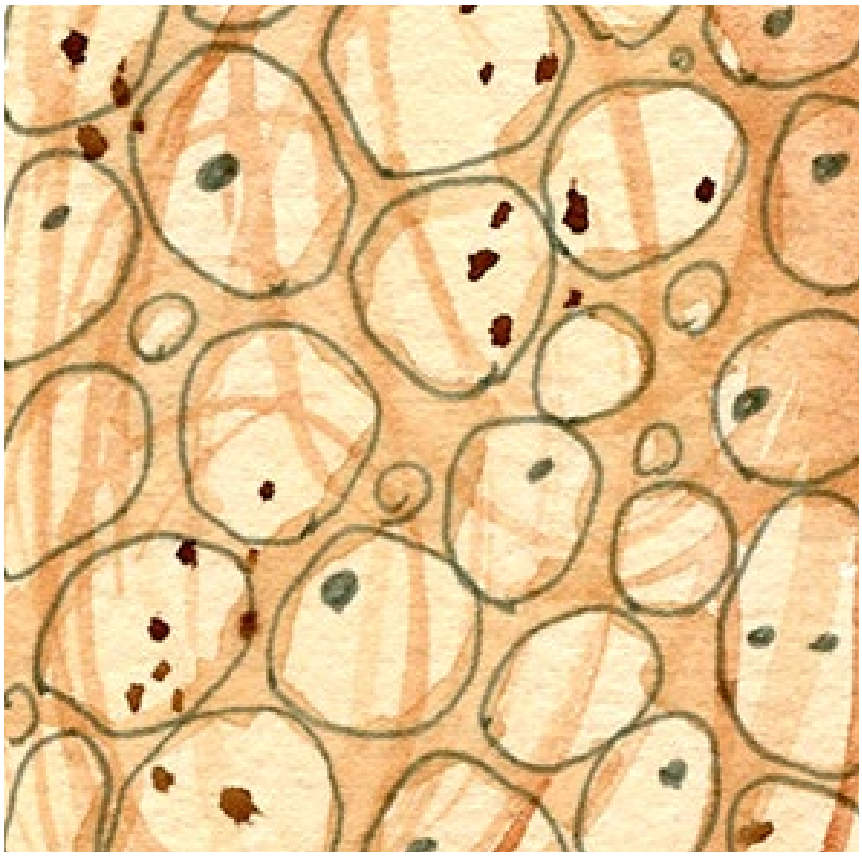
In this lesson, students will develop their final community level funding proposals based on their learning from previous lessons. The final funding proposal artifact will include the model of their proposed DNA collection kit (developed in Lesson 9), visual aid(s) detailing the proposal, and a polished "elevator speech" pitch for their idea. Students will engage with proposals from their peers through constructive feedback and a summative elevator pitch sharing session. Students may also have the option of presenting their ideas at a community or school event.

OBJECTIVES

Students will be able to:

Synthesize complex scientific and technical information with data on community needs and markets, and appeal to stakeholders to create an engaging final proposal.

Communicate clearly and concisely about their ideas to other students and members of the community.



Materials

- What Makes a Successful Crowdfunding Campaign? Capture Sheet
- Final Artifact Proposal Specifications
- Resource for Interpreting Personality Test Results
- Final Artifact Roles
- Story Creation Brainstorm Capture Sheet
- Project Management Tool
- DNA Identification: Final Artifact Task Capture Sheet
- Daily Progress Check Capture Sheet
- Peer Feedback Form Capture Sheet, Group Spokesperson
- Peer Feedback Form Capture Sheet, Peer Reviewer
- Group Feedback Review Capture Sheet
- Pitch Evaluation Capture Sheet
- Elaborated Pitch Deck Example
- Final Assessment Rubric

Pedagogical Framing

Instructional materials are designed to meet national education and industry standards to focus on in-demand skills needed across the full product development life cycle—from molecule to medicine—which will also expose students and educators to the breadth of education and career pathways across biotechnology.

Through this collection, educators are equipped with strategies to engage students from diverse racial, ethnic, and cultural groups, providing them with quality, equitable, and liberating educational experiences that validate and affirm student identity.

Units are designed to be problem-based and focus on workforce skill development to empower students with the knowledge and tools to be the change in reducing health disparities in communities.

SOCIAL-EMOTIONAL LEARNING

Students must use self-discipline and self-motivation to progress to the final project. They will set personal and collective goals each day, and will need to use planning and organizational skills daily. Students need to communicate clearly with their groups and when sharing their final artifact. This lesson also asks students to listen actively, cooperate, and work collaboratively to problem solve and negotiate conflict constructively. They will navigate social settings with differing cultural demands and opportunities, provide leadership, and seek or offer help when needed.

CULTURALLY AND LINGUISTICALLY RESPONSIVE INSTRUCTION

This lesson allows students to develop a final artifact for the real-world issues they identified in their own communities. Students have the opportunity to develop their final artifact to directly address the values and needs of their communities. This final artifact would need to model high expectations and be properly presented to those communities, showing that proper collaboration of the people within that community was incorporated and respected.

ADVANCING INCLUSIVE RESEARCH

In this unit, students have directly connected with individuals from their wider communities, including individuals and communities that may have traditionally been excluded from projects involving DNA identification technologies. In this lesson, students are tasked with developing a proposal pitch that draws on the core values and concerns of their community, including explicitly addressing how to involve potentially marginalized individuals.

COMPUTATIONAL THINKING PRACTICES

Students break down the problem of communicating a complex proposal into component parts, identify key information to include, and develop visual and textual descriptive models to communicate about their problem-solving proposal.

CONNECTION TO THE PRODUCT LIFE CYCLE

In this lesson, students are developing and presenting their final proposals for how DNA identification technology could be used to address issues in their own communities. This lesson connects to both the **manufacture** and the **commercialize** phases of the product life cycle, as students are designing final product prototypes and also considering how to advertise their ideas to the community.

Have you ever wondered…

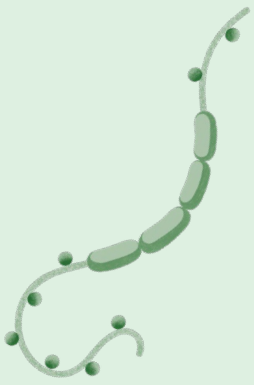
How do entrepreneurs secure funding for their ideas?

While many entrepreneurs utilize grant opportunities or seek funding from larger organizations, many groups and individuals are now turning to the power of crowdfunding platforms to bring their ideas to fruition. Crowdfunding sites allow people to pitch their ideas and secure funding through smaller donations from a large number of individuals.

MAKE CONNECTIONS!

How does this connect to the larger unit storyline?

This lesson represents the culmination of student work throughout the unit. Students will use what they have learned and developed from all previous lessons to create a professional and engaging artifact about their proposal and develop a final elevator speech to pitch their proposal to potential funders.



How does this connect to careers?

Communications directors represent their company or project to the outside world. They may frame project ideas, compile written and visual summaries, and check for brand alignment.

Grant writers prepare materials to request funding for a project. They may write summaries of a proposed project and outline budgets.

Graphic designers make decisions about all visual aspects of a project, including text and images. They may create websites, design product packaging, or develop layouts for written publications.

Marketing directors create ad campaigns and determine the approach for the target audience. They analyze user research to disseminate pointed messaging that increases sales.

Diversity and inclusion directors ensure that companies represent the diversity of their clients, and that the workplace is safe and welcoming for diverse employees. They may form employee groups, strategically recruit to diversify a workplace, and develop training programs to ensure a high quality and inclusive workspace for all.

How does this connect to our world?

Student proposals are focused on an identified community need and will use techniques to engage members of that community. Students have the option to share their ideas with the community.

Day 1

Procedure

LEARNING OUTCOMES

Students will be able to:

Identify the components of effective and non-effective crowdfunding campaign materials.

Teacher Note > *Examples of crowdfunding campaign materials for this lesson could include websites, pitch decks, or video crowdfunding proposals. You can find examples of these proposals on crowdfunding websites such as GoFundMe, Kickstarter, etc., or through a simple Google search for "crowdfunding campaign examples." As an additional idea to spark student creativity, consider showing a clip from a TV show where investors listen to entrepreneurs pitch ideas for a product. Another idea to encourage student discussion would be to have students contrast a successful pitch with another clip of a pitch that was not funded.*

Whole Group (10 minutes)

1. Display an example of a crowdfunding campaign as students enter the room. Have students answer the following prompts in their journals:
   - **a.** What was the first thing you noticed when looking at this example?
   - **b.** What emotions does this campaign make you feel? Why?
   - **c.** Do you feel connected to the campaign idea? Why or why not?

Teacher Note > *You may also want to provide students with a list of emotions to help them answer these prompts.*

2. Ask students to share a few of their responses. Discuss how successful crowdfunding proposals focus on telling a story about the idea in a way that connects to the values and concerns of the target audience, and evoke stronger emotions than ones that are not successful.

Small Group (20 minutes)

Student groups of three to four examine a few examples of proposal materials and complete the *What Makes a Successful Crowdfunding Campaign? Capture Sheet*.

Whole Group (15 minutes)

1. Direct each group to share their responses about which proposal they found the most and least effective, and make a list of these responses on the board.

2. Pass out a copy of the *Final Artifact Proposal Specifications* to each student. Revisit the Learning Artifact Graphic Organizer used in Lesson 1, and discuss the specifications for the graphical portion of the artifact.

Day 2

LEARNING OUTCOMES

Students will be able to:

Reflect on their own strengths and weaknesses to assign group members to roles.

Synthesize complex scientific and technical information with data on community needs and markets, and appeal to stakeholders to create an engaging final proposal.

Procedure

Teacher Note > *In this lesson, you will need a short personality test. Many free versions can be found through an internet search.*

Whole Group (5 minutes)

Explain to students that each group member will serve a role in the group to make the final artifact and that successful groups utilize their members' attributes and recognize different personalities. Tell students that they will be taking a personality test to self reflect and help them understand how differing personalities can make dynamic, successful groups.

Individual Work (20 minutes)

Teacher Note > *Student roles in this lesson parallel career opportunities in communications, graphic design, workplace inclusion, and marketing. Students may benefit from explicit discussion of these career opportunities and the skills needed for each, time permitting.*

1. Have the students take the chosen personality test.
2. Pass out or project the *Resource for Interpreting Personality Test Results* and direct students to focus on the four larger groupings listed. Have them read about their personality types and the associated characteristics. Ask students to reflect about their results. Do they agree or disagree, and why?
3. Introduce the roles for making the final artifact. Project the *Final Artifact Roles* resource to discuss the options for roles on the project:
   - **a.** Graphic Design Lead
   - **b.** Copy Lead
   - **c.** Inclusion Lead
   - **d.** Marketing Lead
4. Encourage students to think about their personality surveys when ranking their choices. Ask students to write their preferences in order from most preferred to least preferred role option.

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Day 2

Continued

Procedure

Individual Work (20 minutes)	
1	Students will then take their lists to their project groups and determine roles. If there is an issue with role selection, then the teacher will make the final decision.
2	After the final decisions, students need to fill out the Role Options Section of the *Final Artifact Roles*.
3	Remind students of their Project Proposal Capture Sheet they completed as a part of Proposal Development (PD) Lesson 1, and pass out a copy of the *Story Creation Brainstorm Capture Sheet* to each student group. Direct students to follow the prompts to brainstorm ideas for the central story through which they will pitch their proposal.
4	Student groups will submit their *Story Creation Brainstorm Capture Sheet* to the teacher for approval or feedback. The approval or feedback should be brief, as this is the same issue they developed in Proposal Development (PD) Lesson 1. The teacher and students can refer back to the final statement on the *Story Creation Brainstorm Capture Sheet* to help focus students when doing daily progress checks throughout this lesson.

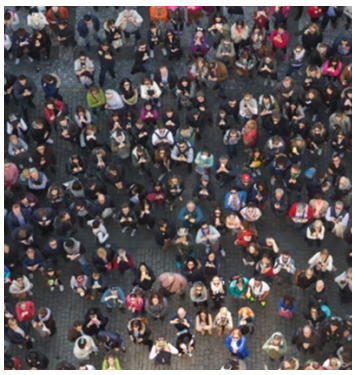
Day 3

Procedure

LEARNING OUTCOMES

Students will be able to:

Synthesize complex scientific and technical information with data on community needs and markets, and appeal to stakeholders to create an engaging final proposal.



Whole Group (15 minutes)	
1	Project the *Elaborated Pitch Deck Example* for the class and share the *Final Artifact Proposal Specifications* with students. Discuss the specifications and ask students to point out where they see those requirements reflected in the example.
2	Refer students to the *Project Management Tool* and pass out the *DNA Identification: Final Artifact Task Capture Sheet* to the student groups (note the separate pages for each role: Copy lead, Graphic Design Lead, Inclusion Lead and Marketing Lead). Go over the general expectations for each role and demonstrate how to use the *Project Management Tool* to track progress.
3	Students are also responsible for combining and finalizing the learning from the units into a Portfolio of Supporting Evidence. This will help justify the claims in their pitch and pitch deck.
4	Point students to the *Final Assessment Rubric* to review the aspects of their projects that will be evaluated.

Small Group (25 minutes)	
1	Discuss the guidelines for completing a project progress check daily meeting using the *Daily Progress Check Capture Sheet*. Pass out a copy of the capture sheet to each student group. Student project groups follow the guidelines to do their daily progress check meeting and set goals for the day's work. The group submits the day's goals to the teacher for record keeping.
2	Student groups work to create their final artifact, following the guidelines provided and the daily goals set during the progress check daily meeting. Remind students to refer to the *Project Management Tool* and the *DNA Identification: Final Artifact Task Capture Sheet* for their assigned roles.

Days 4–5

Procedure

LEARNING OUTCOMES

Students will be able to:

Synthesize complex scientific and technical information with data on community needs and markets, and appeal to stakeholders to create an engaging final proposal.

Teacher Note > *The time needed for artifact creation can be adjusted to fit the needs of your students. For artifact creation days, student groups should begin each class period with a short progress check meeting where they review their progress and set goals for what to accomplish during the class period. Each group will submit their daily goals to the teacher as a record of their progress.*

Small Group (5 minutes)

Student project groups follow the guidelines to do their daily progress check meeting and set goals for the day's work using the *Daily Progress Check Capture Sheet*. The group submits the day's goals to the teacher for record keeping.

Small Group (40 minutes)

Student groups work to create their final artifacts, following the guidelines provided and the daily goals set during the progress check daily meeting. Remind students to refer to the *Project Management Tool* and the *DNA Identification: Final Artifact Task Capture Sheet* for their assigned roles.

Day 6

Procedure

LEARNING OUTCOMES

Students will be able to:

Synthesize complex scientific and technical information with data on community needs and markets, and appeal to stakeholders to create an engaging final proposal.

Provide constructive feedback to peers and utilize feedback to revise and improve the final artifact.

Whole Group (5 minutes)

Students participate in a feedback walk to provide feedback to other groups. Instruct each group to select one member to be the group spokesperson. This person will stay with the project to answer questions while the rest of the group travels to other spokespeople to give feedback.

- Give each group's spokesperson a copy of the *Peer Feedback Form Capture Sheet, Group Spokesperson* to record any verbal feedback they receive.
- Each station should have copies of the *Peer Feedback Form Capture Sheet, Peer Reviewer*. As students from other groups approach each spokesperson, they should pick up a copy, write their feedback, and hand it back to the spokesperson before moving on to the next group.

Teacher Note > *Consider asking groups to split up, and visit spokespeople independent from each other. This is a great opportunity to get students out of their "working groups" and create heterogeneous groups.*

Small Group (30 minutes)

Divide the 30 minutes by the number of groups through which you need students to rotate. Keep a timer visible so students can self monitor their progress.

Small Group (10 minutes)

1	After the feedback walk is complete, ask students to return to their project groups to review the feedback they received and compile it into the *Group Feedback Review Capture Sheet*.
2	Based on the feedback, the group should determine who is responsible for making any changes based on their group roles.

Days 7–8

Procedure

LEARNING OUTCOMES

Students will be able to:

Communicate clearly and concisely about their ideas to other students and members of the community.

Teacher Note > *If possible, arrange for students to present their findings for the community group(s) addressed in the project. Students could also share their final artifacts at a school open house or parent night. If presenting in a more public setting, you could have attendees complete feedback forms for the groups or develop a comment card that could be left for each group.*

Whole Group (45 minutes)	
1	For in-class presentations, have each group member project their elaborated pitch deck so it is visible to the whole class. Members of each group share their elevator pitch based on their roles.
2	Allow three to five minutes for questions from the audience and group responses.
3	After each group finishes sharing, students in the audience should complete a *Pitch Evaluation Capture Sheet*.

Teacher Note > *As an alternative to the Pitch Evaluation Capture Sheet, ask students to fill out a form to "fund" their favorite project. Each student could have a certain amount of money to "invest" in projects other than their own.*

National Standards

Next Generation Science Standards	**ETS1-2 Engineering Design** Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
	Science and Engineering Practices Constructing explanations and designing solutions Apply scientific ideas, principles, and/or evidence to provide an explanation of phenomena and solve design problems, taking into account possible unanticipated effects.
Career and Technical Education (CTE)	**A1.0** Define and assess biotechnology and recognize the diverse applications and impact on society.
	A1.6 Explore and outline the various science and non-science fields and careers associated with biotechnology.
	A3.0 Demonstrate competencies in the fundamentals of molecular cell biology, including deoxyribonucleic acid (DNA) and proteins and standard techniques for their purification and manipulation.
	A5.2 Use a variety of methods, including literature searches in libraries, computer databases, and online for gathering background information, making observations, and collecting and organizing data.
	A8.7 Determine which equipment is appropriate to use for a given task and the units of measurement used.
	2.4 Demonstrate elements of written and electronic communication such as accurate spelling, grammar, and format.
	2.5 Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
	7.1 Recognize how financial management impacts the economy, workforce, and community.

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What Makes a Successful Crowdfunding Campaign? Capture Sheet

Directions

Examine and discuss the examples of crowdfunding campaign materials provided by your instructor. Record main ideas from your discussion on this sheet. A spokesperson from your group will be asked to share some of your ideas with the whole class.

1. Discuss the following prompts for each example of a crowdfunding campaign.

   Who is the audience for this proposal?

   How does this example seek to capture the audience's attention or interest?

   How does this example reflect the values and concerns of the audience?

   Do you think the example succeeds in connecting to its intended audience? Why or why not?

2. Record main ideas from your discussion

Audience	Gaining Attention	Reflecting Values	Overall Success Rating 1–5 (1 is low)
Example 1:			

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What Makes a Successful Crowdfunding Campaign? Capture Sheet

Continued

Audience	Gaining Attention	Reflecting Values	Overall Success Rating 1–5 (1 is low)
Example 2:			
Example 3:			
Example 4:			

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What Makes a Successful Crowdfunding Campaign? Capture Sheet

Continued

3. Out of all the examples you examined, which proposal do you think is the *most* effective? Why?

4. Out of all the examples you examined, which proposal do you think is the *least* effective? Why?

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Final Artifact Proposal Specifications

Directions

Use the guidelines below to assist you in developing your final artifact outlining your DNA identification proposal. Your final artifact will be a proposal that could be presented to your target audience to attract funding for your ideas. This aligns with the Project Management Tool and the Final Assessment Rubric. Your final artifact will consist of three parts:

Part 1	Part 2	Part 3
Elaborated Pitch Deck Professional slide deck about your proposal	**Elevator Pitch** Short speech explaining the key components of your proposal	**Portfolio of Supporting Evidence** Compilation of finalized work throughout the unit
Components	Requirements	Requirements
Central problem: What is the core issue/challenge/idea that your proposal addresses?	Pitch summarizes key ideas from the elaborated pitch deck.	Data Collection Plan Capture Sheet (from PD Lesson 1)
Your story: Why are you proposing this project? Why should the community care about this topic? Who are the most important stakeholders? Use data from your surveys and interviews to support your ideas.	Entire pitch is no more than two to three minutes in length.	Data analysis from surveys and interviews (from PD Lesson 1)
Proposed science-based solution: How are you proposing to address your central problem using DNA identification technology? How will this technology address the issue?	Explanation in the pitch should *stand alone*, meaning it is fully understandable by someone who is listening to your pitch, but has not seen your pitch deck or any of your other materials.	Competitive Landscape Analysis Summary Report Capture Sheet (from PD Lesson 2)
Project deliverables: What would be produced or provided if your proposal is funded? Include the model of your proposed DNA kit and an explanation of how the DNA would be analyzed.	You may use one notecard for support.	Stakeholder Analysis Inclusion Grid Capture Sheet (from PD Lesson 3)
		Part 2: Decision Tree Creation Capture Sheet (from Lesson 9) DNA Test Kit Slides (developed in Lesson 10)

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Resource for Interpreting Personality Test Results

Directions
After taking the personality test, read about your personality type and the associated characteristics. Reflect on your results. Do you agree or disagree? Keep these personality types in mind as you rank your choices for the Final Artifact Roles.

Visionaries
Intuiting Thinking Types of ENTJ, ENTP, INTJ, INTP

Motivating visionaries is the need to understand and synthesize complex information, anticipate future trends, and focus on long-range goals. They enjoy new ways of doing things: developing, designing, and building models, theories, and systems. They can look at the big picture and help define new ideas or design new ways of doing things.

Idealists
Intuiting Feeling Types of ENFJ, ENFP, INFJ, INFP

Idealists tend to envision an ideal world and want to work toward creating that vision. Sometimes seen as overly optimistic, they genuinely strive for an ideal they believe is real. Often they are sensitive to others' emotional needs and skillful at bringing out the best in people. They have a strong desire for harmony and are good at conflict resolution.

Conductors
Sensing Judging Types of ESTJ, ESFJ, ISTJ, ISFJ

Conductors are outstanding at gathering the right information, analyzing the options, and developing a realistic plan to get things done. They keenly value traditions and customs, and believe these traditions provide a sense of safety, stability, and belonging. They can orchestrate all the details of an event or project and have a gift for anticipating problems that might disrupt stability.

Troubleshooters
Sensing Perceiving Types of ESTP, ESFP, ISTP, ISFP

Troubleshooters are spontaneous and optimistic and trust their impulses to lead them in the right direction. They keenly observe the environment and can assess a crisis and immediately improvise to create a solution. They are bored with routine or with over-thinking "what could happen," preferring to adapt to the situation as it happens.

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Final Artifact Roles

Directions
Read the role descriptions on the next page and determine which group member will be responsible for each role. Fill in the table on the next page with these names, and add this information to the Project Management Tool.

Key Guidelines:

Your final artifact will be built upon the research you have completed throughout this unit, as outlined by the *Final Artifact Proposal Specifications*.

Each person in your group will take a different lead role in the final artifact creation.

The lead for each area will be responsible for making final decisions regarding that aspect of the artifact, as well as providing clear evidence for each choice and engaging in project meetings about that area with your instructor.

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Final Artifact Roles

Continued

Role	Responsibilities for Elaborated Pitch Deck	Responsibilities for Elevator Pitch	Portfolio of Supporting Evidence	Name of Designated Lead
Graphic Design Lead	Selects graphical layout for final artifact. Uses feedback from other group members to make decisions about placement of text and images, as well as how to use color, font size, and style, and other visual components to create a professional final artifact.	Supporting role during pitch. Aids Marketing Lead and Inclusion Lead with slide progression and technology. Can also field questions and supporting statements during pitch.	Contributes to finalization of unit evidence pages (from lessons in the unit)	
Copy Lead	Composes clear and concise text for the final artifact. Uses feedback from Inclusion and Marketing Leads to make decisions about phrasing to best present the proposal. Reviews final copy to assure it is free from distracting errors in spelling and grammar.	Supporting role during pitch. Aids Marketing Lead and Inclusion Lead with slide progression and technology. Can also field questions and supporting statements during pitch.	Contributes to finalization of unit evidence pages (from lessons in the unit)	
Inclusion Lead	Assures that identified stakeholders are included in the final artifact. Refers to the Stakeholder Analysis Grid Capture Sheet (from PD Lesson 3) to identify ways to include all stakeholders in the final artifact. Reviews images and text from the perspective of stakeholders and suggests changes to increase inclusion and stress stakeholder values.	Co-spokesperson during elevator pitch. Shares responsibility for deciding what to say in the pitch with the Marketing Lead.	Contributes to finalization of unit evidence pages (from lessons in the unit)	
Marketing Lead	Refers to the Competitive Landscape Analysis Summary Report Capture Sheet (from PD Lesson 2) and determines how and where to emphasize features that set your proposal apart from competitors. Reviews images and text from the perspective of market competition and suggests changes to emphasize how the proposal is unique from other ideas and fulfills needs or gaps for the target audience.	Co-spokesperson during elevator pitch. Shares responsibility for deciding what to say in the pitch with the Inclusion Lead.	Contributes to finalization of unit evidence pages (from lessons in the unit)	

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Story Creation Brainstorm Capture Sheet

Directions

A key component in creating a crowdfunding campaign pitch is to formulate your ideas into a coherent story. Your story explains who you are, what you want to do, and why it is important. Using a story format makes your ideas emotionally engaging for your audience and helps them feel connected to your plan. Stories can be told using a combination of text and images and should be tailored to your audience. Discuss the following prompts with your whole group and make notes on the lines provided.

1. What connects you to your proposal? Why do you care about this issue?

2. Who is your audience? How can you engage your audience in your proposal?

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Story Creation Brainstorm Capture Sheet

Continued

3. Why is your proposal important to your community? Why should someone else care about this issue?

4. As a group, write a clear and concise statement of a few sentences that communicates the central issue of your proposal. This statement will be the framework around which you build your final artifact.

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DNA Identification: Final Artifact Task Capture Sheet

Role: Copy Lead

Directions

Refer to the community Project Management Tool for a detailed list of your responsibilities in developing the final artifact. Use the questions below to help you get started.

1. Your Story

   Refer to your group's *Story Creation Brainstorm Capture Sheet*. Make an outline of how you will frame your story in a way that engages your audience.

   Remember to include the following:

— Who are you?
— What are you proposing?
— Why is your proposal important to you and your community?
— Why should someone care about this idea?

2. Science-Based Solution

   Refer to your Part 2: Decision Tree Creation Capture Sheet (from Lesson 9), DNA Test Kit Slides (developed in Lesson 10), and the Elaborated Pitch Deck your group made earlier. Make an outline of how you will explain your proposed solution in a way that is understandable to people in the community.

   Remember to include the following:

— How are you proposing to address your central problem using DNA identification technology?
— Why is this technology appropriate for your proposal?
— How will this technology address the issue?

3. Project Deliverables

   Refer to the DNA Test Kit Slides (developed in Lesson 10) and Elaborated Pitch Deck your group made earlier. Revise the text on these slides to assure the following are addressed:

— What would be produced or provided if your proposal were funded?
— How would the DNA be analyzed?

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DNA Identification: Final Artifact Task Capture Sheet

Role: Graphic Design Lead

Directions

Refer to the community Project Management Tool for a detailed list of your responsibilities in developing the final artifact. Use the questions below to help you get started.

1. Layout and Design

   Do a Google search for "pitch deck examples." Look at several different example layouts. Choose two to three that stand out to you. Use the space below to summarize your thoughts on what makes those designs effective or not effective in each of the categories.

	Example 1	Example 2	Example 3
Overall Theme color, slide layouts, etc.			
Organization and Flow of Information			
Use of Visual Elements images, graphs, tables, text			
Readability images, graphs, tables, text			
Other Notes			

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DNA Identification: Final Artifact Task Capture Sheet
Role: Graphic Design Lead

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2. Visual Elements

Make a list of visual elements that you should include in your pitch deck. For each element listed, track whether you already have a visual to use for this element or whether you will need to find or create one to use. The first elements have been added for you because they are requirements for the pitch deck.

Element	Done	Located, but Needs Revisions	Need to Create	Need to Find
DNA Kit Model slides developed in Lesson 10				
Graphical Representation of Data from Surveys and Interviews from Professional Development Lesson 1				

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DNA Identification: Final Artifact Task Capture Sheet

Role: Inclusion Lead

Directions

Refer to the community Project Management Tool for a detailed list of your responsibilities in developing the final artifact. Use the questions below to help you get started.

1. Understand Your Stakeholders

   What does your audience value? What do they find important? Use your Stakeholder Analysis Inclusion Grid Capture Sheet (from PD Lesson 3) to help you answer these questions.

2. Connect to Your Stakeholders

   How are your audience's values connected to your proposal? Where could you emphasize those values?

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DNA Identification: Final Artifact Task Capture Sheet
Role: Inclusion Lead

Continued

3. Speak to the Values of Your Stakeholders

   What words, phrases, or images could you use that would help connect your proposal to your audience's values?

4. Potential Stakeholder Flags

   What parts of your proposal might raise concerns for your audience? Use your Stakeholder Analysis Inclusion Grid Capture Sheet to help you answer this question. How might you address those concerns when making your proposal?

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DNA Identification: Final Artifact Task Capture Sheet

Role: Inclusion Lead

Continued

5. Present Your Evidence

   Use the Evidence Grid below to record your progress to include your stakeholders.

Date	Proposed Revisions	Specific Evidence Supporting Need for Revision

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DNA Identification: Final Artifact Task Capture Sheet

Role: Marketing Lead

Directions

Refer to the community Project Management Tool for a detailed list of your responsibilities in developing the final artifact. Use the questions below to help you get started.

1. Make Yourself Competitive

   What makes your proposal stand out among your competitors? What does your proposal offer that is unique? Use your Competitive Landscape Analysis Summary Report Capture Sheet (from PD Lesson 2) to help you answer these questions.

2. Emphasize Your Value

   Where and how could you emphasize the unique features of your proposal? What words, phrases, or images could you use that would help your proposal stand out from the competition?

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DNA Identification: Final Artifact Task Capture Sheet
Role: Marketing Lead

Continued

3. Target Your Audience

   Do an internet search for "advertising techniques." Make a list of techniques that might be effective to market your proposal. For each technique, reflect on how it could be integrated into your pitch deck.

Advertising Technique	How to Integrate into our Pitch Deck

Continues next page >

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DNA Identification: Final Artifact Task Capture Sheet

Role: Marketing Lead

Continued

4. Present Your Evidence

   Use the Evidence Grid below to record your progress to market your product.

Date	Proposed Revisions	Specific Evidence Supporting Need for Revision

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Daily Progress Check Capture Sheet

Directions
Begin your day's work with a quick meeting to review your progress and set goals for what to accomplish during the class period. As a group, submit one copy of this page to your teacher each day as a record of your progress.

Project Group	*Date*	*Progress Check Number*

Project Goals

Name	Elaborated Pitch Deck	Elevator Pitch	Feedback Request(s)

Support Needed

Tasks completed

Questions

Continues next page >

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Peer Feedback Form Capture Sheet

Group Spokesperson

Directions

Your job is to stay with the project and answer questions for the individuals giving feedback.

1. When your peers get to your project, give each of them a copy of the *Peer Feedback Form Capture Sheet, Peer Reviewer*.

2. Ask them to fill it out while you answer their questions.

3. Collect the paper before they move on to the next station.

4. Record any verbal feedback you heard from the groups as you answered questions below.

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Peer Feedback Form Capture Sheet

Peer Reviewer

Directions

Fill in the sheet with your feedback for the group.
Remember to be specific and clear with your feedback.
Hand the form to the Group Spokesperson when you are finished with that "round" of feedback.

Name of Peer Reviewer	*Date*

One celebration:

Two helpful suggestions:

1

2

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Group Feedback Review Capture Sheet

Directions
Read the *Peer Feedback Form Capture Sheet, Group Spokesperson* notes and all *Peer Feedback Form Capture Sheets, Peer Reviewer* outcomes. Make a list of specific changes you think need to be made based on the feedback. Then, based on the roles for your group, assign one individual responsible for implementing each change in the table below.

Specific Changes We Need	Group Member Responsible

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Pitch Evaluation Capture Sheet

Directions
For each of the following categories, indicate where the group falls by placing an X on the continuum. Add comments and suggestions in the space provided at the end.

My Name

Group Name

Central Problem and Story Development	Is the problem clearly defined?	YES	NO
	Is the problem connected to the community and stakeholders?	YES	NO
	Can the problem be solved with DNA identification?	YES	NO
	Does the project deliver value to stakeholders?	YES	NO
Science-Based Solution and Project Deliverables	Is the solution clear?	YES	NO
	Is the method of DNA identification used appropriate?	YES	NO
	Do they have an appropriate plan for how to implement the solution? (DNA Kit)	YES	NO
	Is the solution “doable”?	YES	NO
Overall Feedback	Is the tone of the pitch effective?	YES	NO
	Are the visual and graphic design elements effective?	YES	NO
	Is the group cohesive in working toward the solution?	YES	NO

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Pitch Evaluation Capture Sheet

Continued

List comments or suggstions here.

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Elaborated Pitch Deck Example

Directions
Briefly review these slides as a model for your Elaborated Pitch Deck. Note how this deck includes all the components listed in the Final Artifact Proposal Specifications.

Continues next page >

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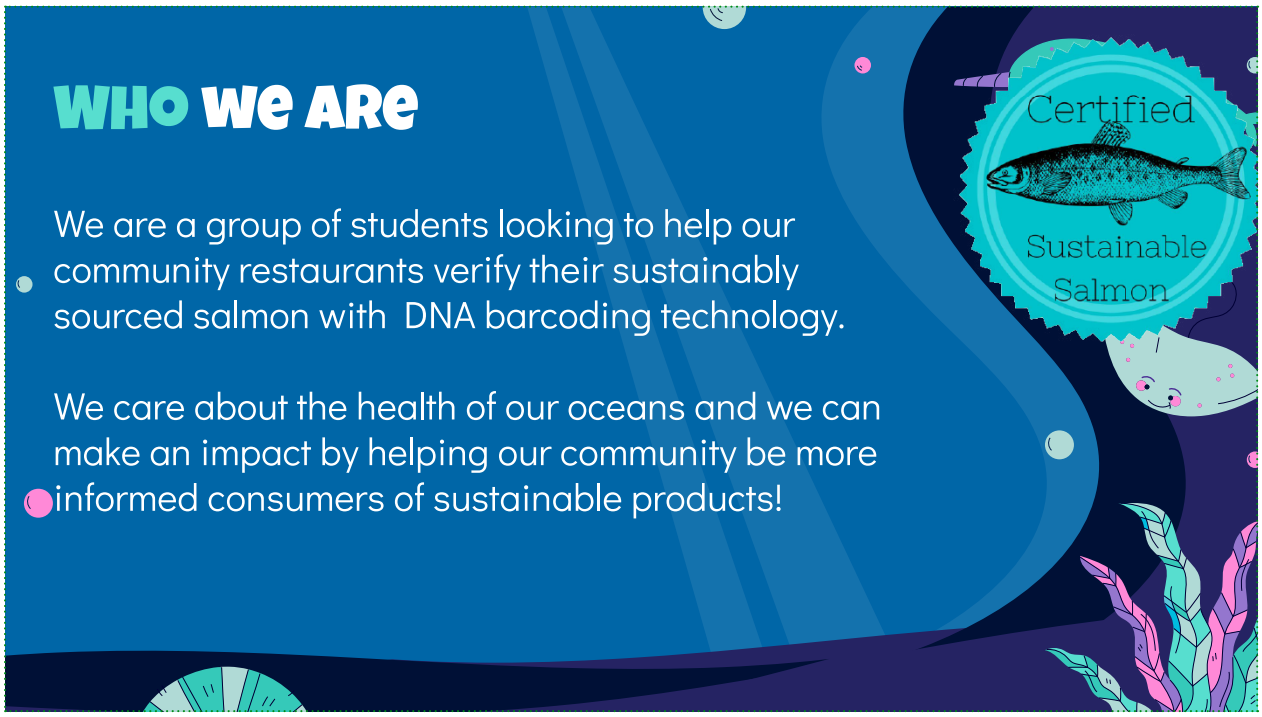
Elaborated Pitch Deck Example

Continued



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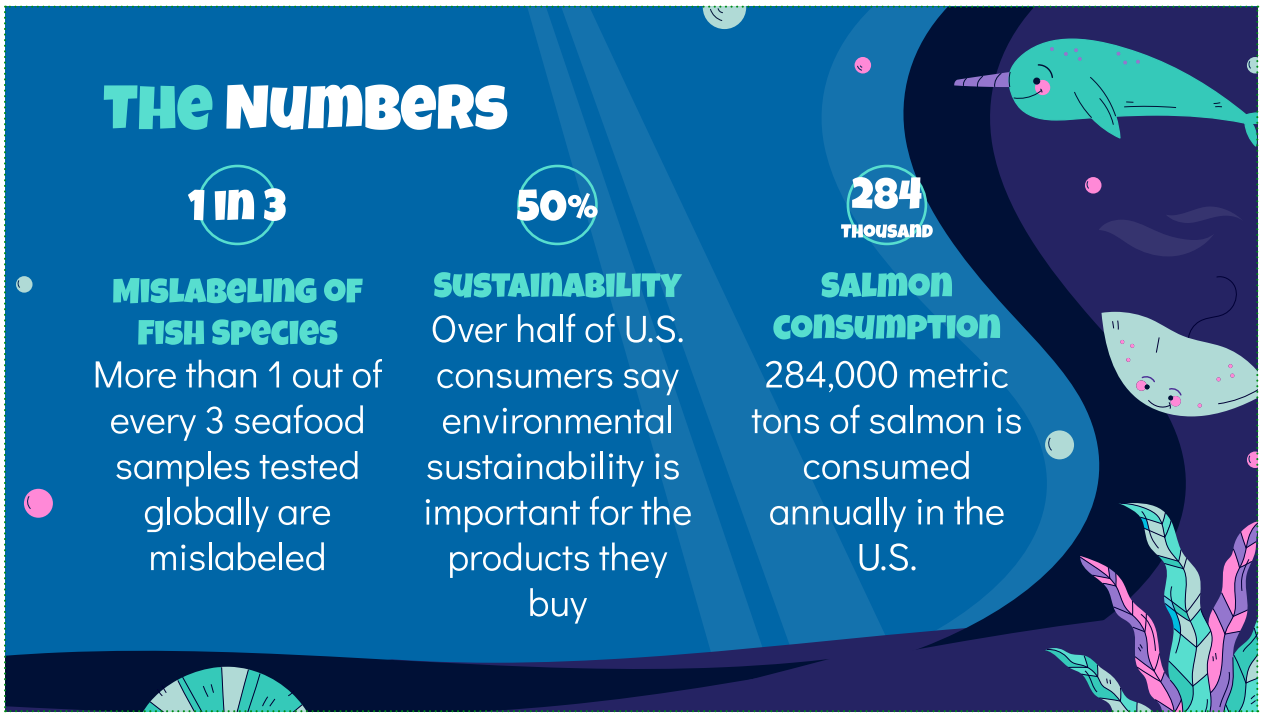
Elaborated Pitch Deck Example

Continued



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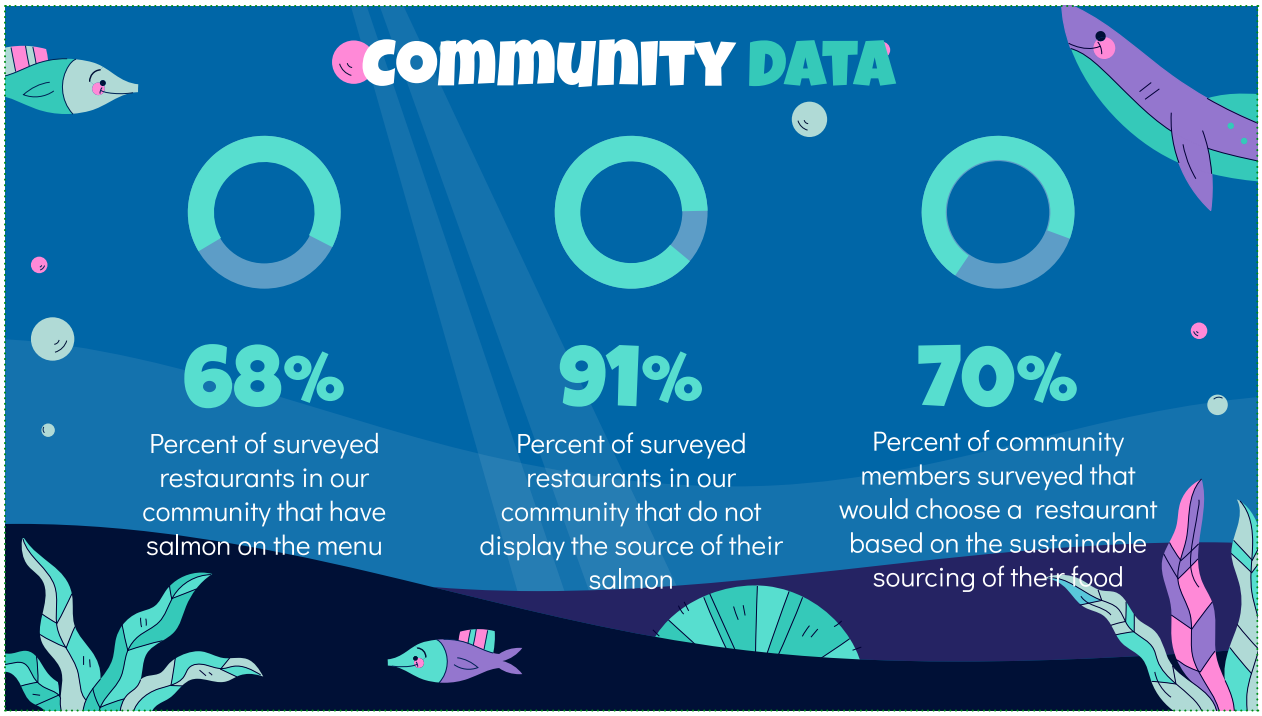
Elaborated Pitch Deck Example

Continued



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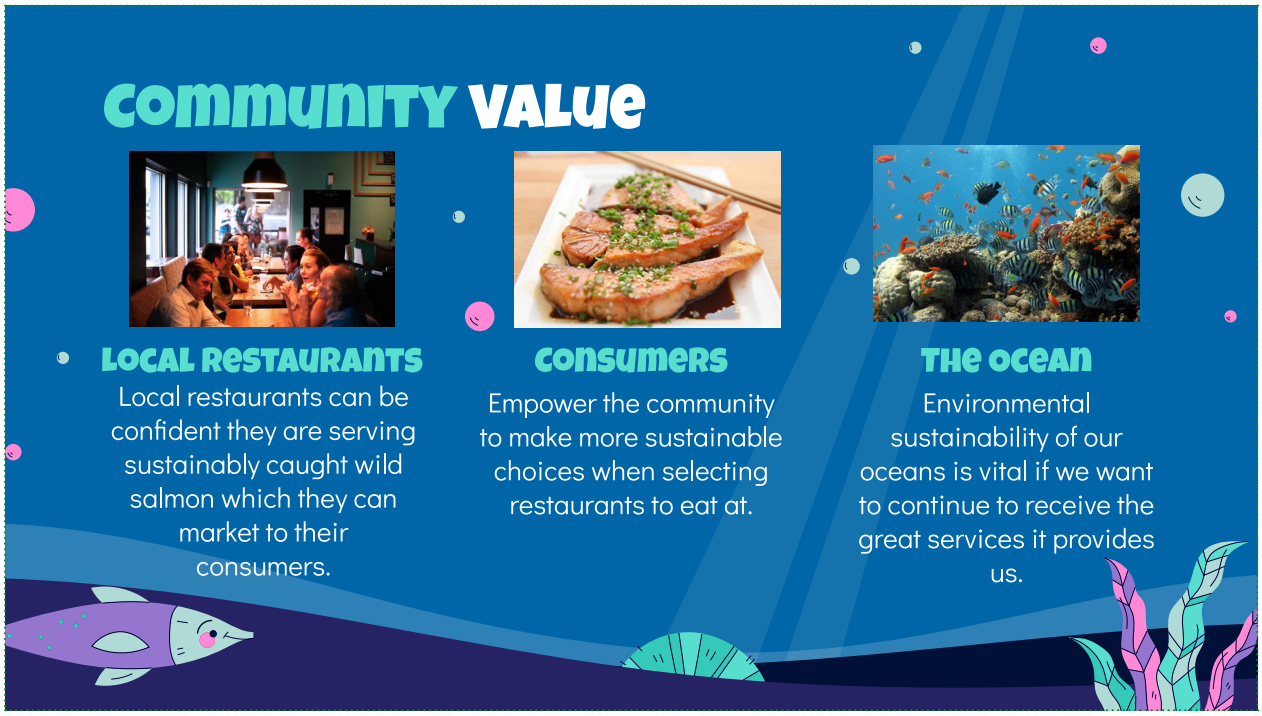
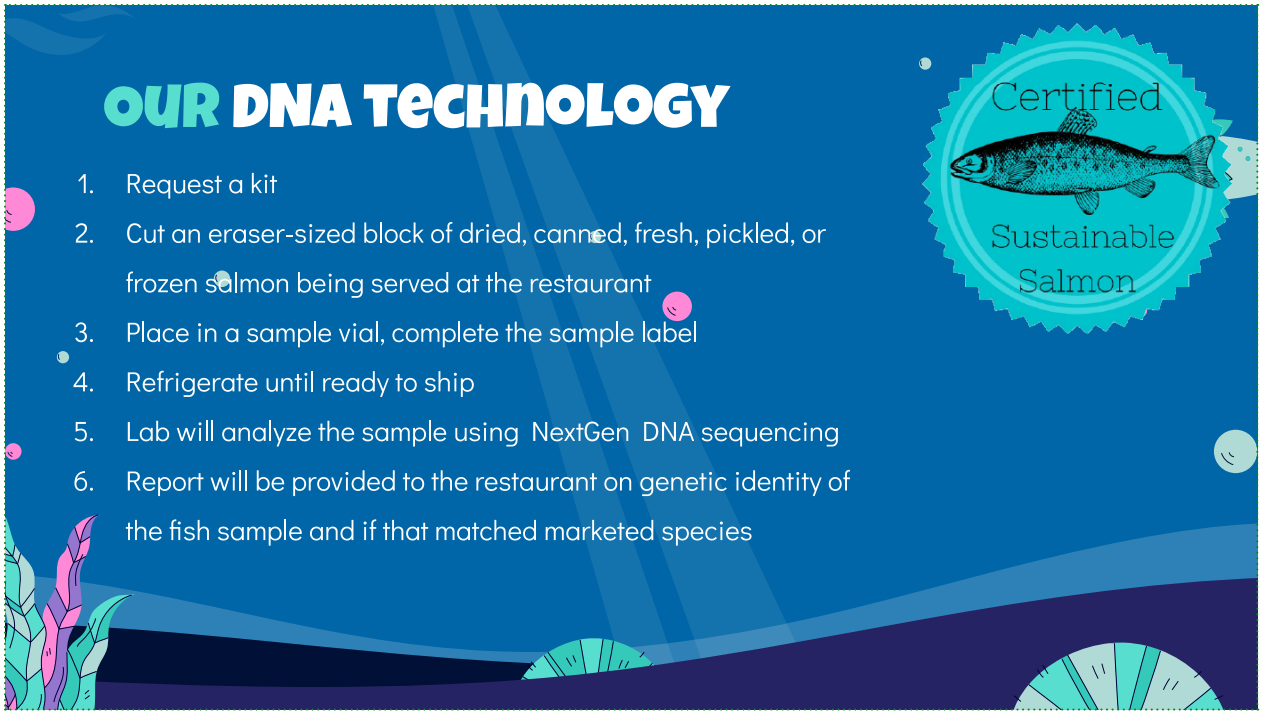
Elaborated Pitch Deck Example

Continued





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Elaborated Pitch Deck Example

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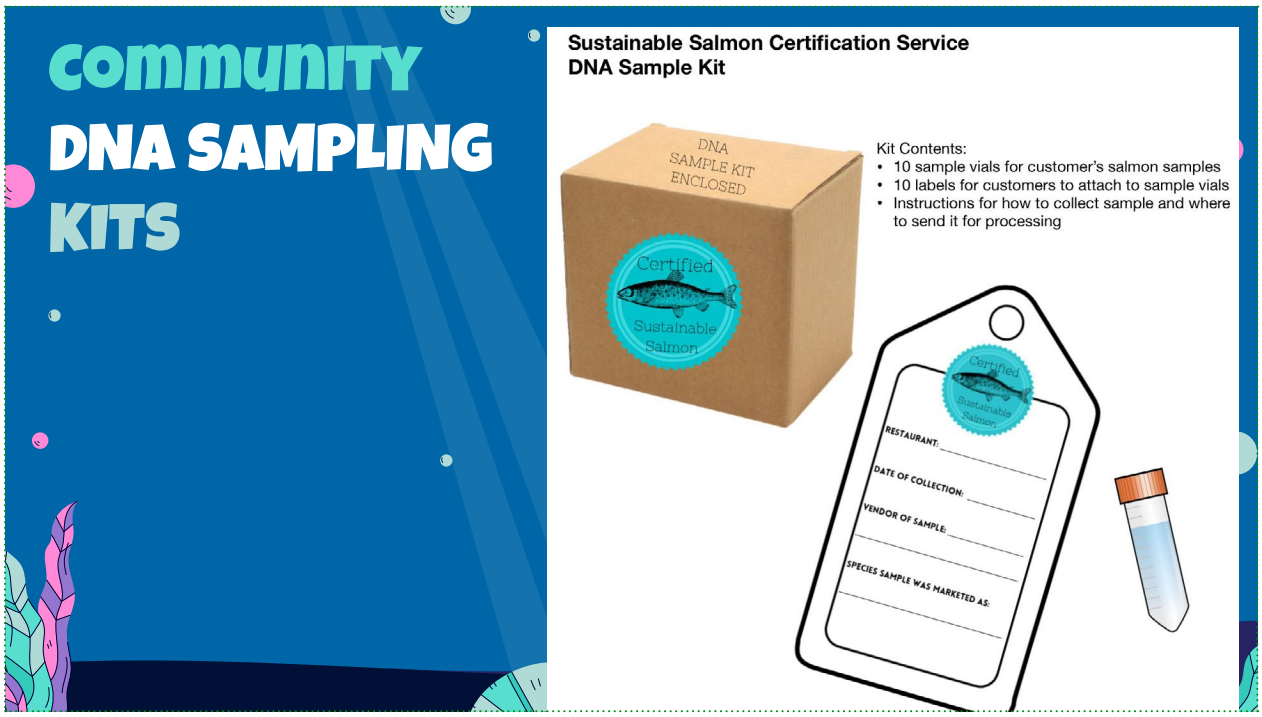

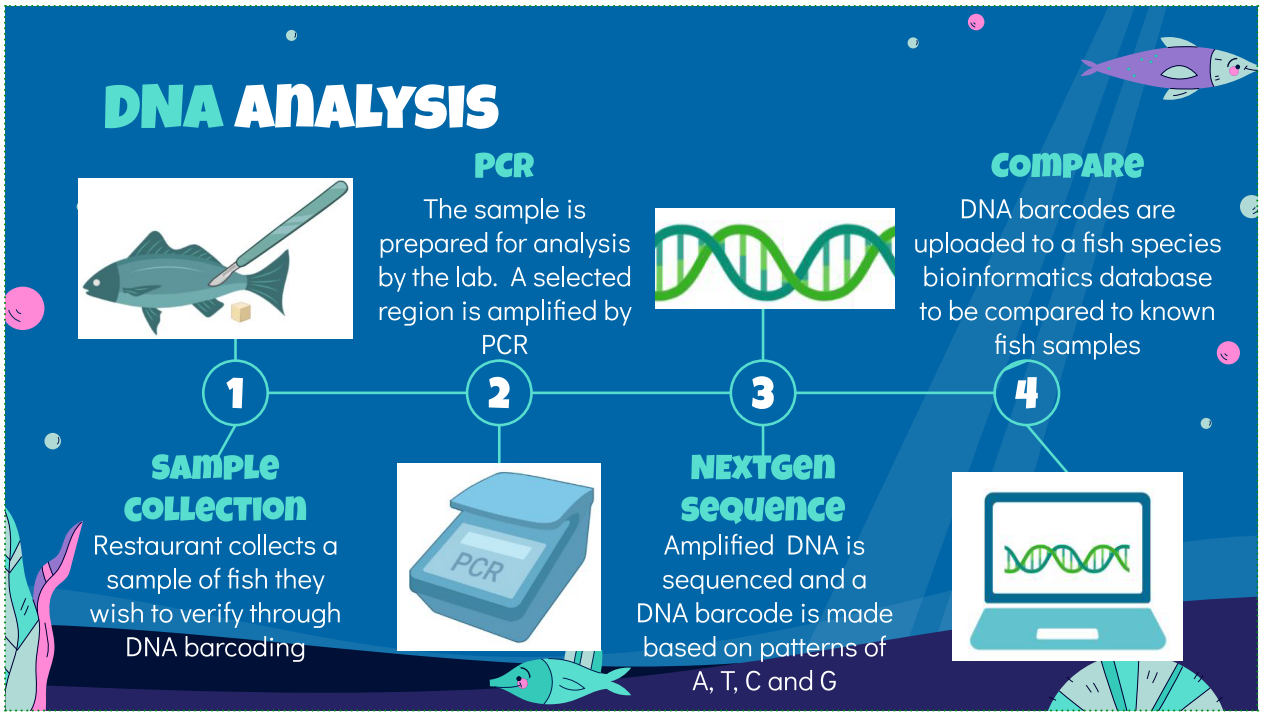

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Elaborated Pitch Deck Example

Continued

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Final Assessment Rubric

Components	Meets Expectations 8–10 points	Progressing 5–7 points	No attempt 0 points
1. Elaborated Pitch Deck			
a. Central Problem: What is the core issue/ challenge/idea that your proposal addresses?			
b. Story Development: Why are you proposing this project? Why should the community care about this topic? Who are the most important stakeholders?			
c. Science-Based Solution and Evidence: How are you proposing to address your central problem using DNA identification technology? How will this technology address the issue?			
d. Project Deliverables: What would be produced or provided if your proposal is funded? Include the model of your proposed DNA kit and explanation of how the DNA would be analyzed.			
e. Graphic Design and Presentation: Does the project look professional? Are design decisions made that support the content?			
2. Elevator Pitch			
a. Content Selection: Summarizes key ideas from the elaborated pitch deck.			
b. Delivery: Entire pitch is no more than 2 to 3 minutes in length.			
c. Explanation: The pitch should “stand alone,” meaning that it is fully understandable by someone who is listening to your pitch, but has not seen your pitch deck or any of your other materials.			
d. Task Constraints: You may use one notecard for support.			

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Final Assessment Rubric

Continued

Components	**Meets Expectations** 8–10 points	**Progressing** 5–7 points	**No attempt** 0 points
3. Portfolio of Supporting Evidence			
a. Data Collection Plan Capture Sheet (PD Lesson 1)			
b. Data Analysis from Surveys and Interviews (PD Lesson 1)			
c. Competitive Landscape Analysis Summative Report Capture Sheet (PD Lesson 2)			
d. Stakeholder Analysis Grid Capture Sheet (PD Lesson 3)			
e. DNA Collection Kit Original Slides (Lesson 10)			
Total Score			
Grade			