

Facilitation Guide: Sold! Build e-Commerce Success

Challenge

Students will develop a business plan for an e-commerce business venture in which they sell Glowforge designs and/or products. They will need to consider how the cost of product, labor, and shipping will impact their pricing models. Students may also need to adapt or refine their existing Glowforge product(s) to improve profitability or customize for customer preferences.

This challenge is intended to be the second of three challenges within the Entrepreneurship series. Educators may choose to move through these challenges sequentially or pick and choose as needed.

Rationale

Online marketplaces and e-commerce platforms have become increasingly important for entrepreneurs to reach a wider audience and grow their business. Thinking critically about product design, the needs of customers, and pricing is critical to the success of any e-commerce business.

In this challenge, students will gain valuable insights into what it takes to design and price products for e-commerce businesses, as well as develop the skills and knowledge they need to succeed in the e-commerce industry. Students will consider how products can be adapted to meet the needs of their target market while also adjusting the pricing, and possibly production, of products to account for shipping and fulfillment. They may also consider how adding customizable options or utilizing props for photo marketing can make their products more appealing to customers.

Glowforge provides student businesses the opportunity to create engaging products and build a memorable brand. With the ability to cut, engrave, and etch, the customization and personalization options are endless, making it the ideal tool for e-commerce products.

Standards

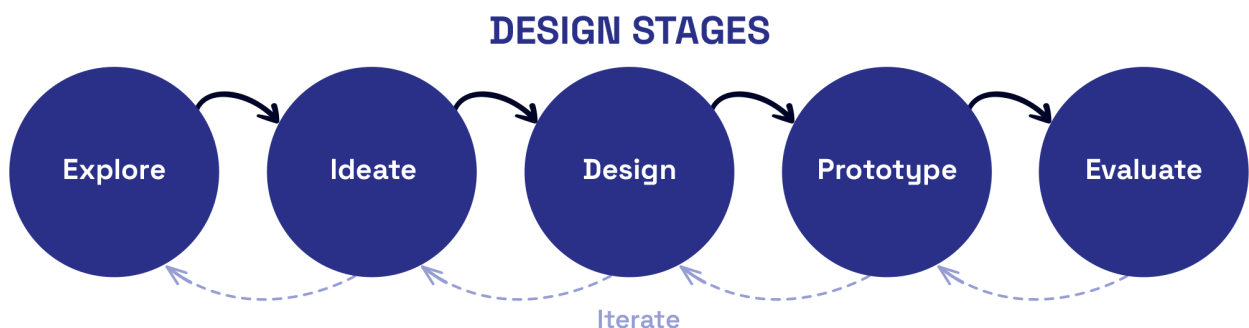
Common Career Technical Core Standards

- BAC 05.03 Understand tools, strategies, and systems used to maintain, monitor, control, and plan the use of financial resources.
- BAC 10.01 Access, process, maintain, evaluate, and disseminate information to assist in business decision-making.
- BAC 10.02 Establish, maintain, control, and plan the use of financial resources to protect solvency.
- BAC 10.03 Employ tools and strategies to influence, plan, control, and organize an organization/department.

ISTE Standards for Students

- 1.1.c Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
- 1.2.b Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
- 1.4.c Students develop, test and refine prototypes as part of a cyclical design process.
- 1.5.b Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.

Facilitation Steps to Support the Design Process



Explore

In this stage, students focus on researching and investigating e-commerce platforms, e-commerce business plans, and elements that may influence sales for their Glowforge products. To ensure that students have the knowledge and skills they need to complete this stage, use the following steps.

1. Provide students with a brief introduction to the challenge and relevant resources on e-commerce and business plans.

- If students have not yet created anything using Glowforge, check out the [Marketing Magic challenge](#) where students design and create a marketable product using Glowforge for their target market.
 - Encourage students to engage with articles, websites, and videos to learn more about [sales funnels](#), increasing [conversion rate](#), and e-commerce fulfillment.
 - Help students connect with business leaders and entrepreneurs using e-commerce. They might conduct interviews or question and answer sessions to better understand e-commerce storefronts or e-commerce development.
2. Provide students with question prompts from the Explore stage of the challenge to help inspire their research and consider how they might better set up their e-commerce business for success.
 3. Help students explore e-commerce platforms, like Etsy, Shopify, and Amazon.
 - Students may also consider developing a website with e-commerce features. Help them locate [low-code or no-code website builders](#).
 - Remember to consider students' age as some platforms may require parental consent for students under a certain age per [COPPA](#).

At the end of this stage, students will reflect on the research they did to learn more about planning for an e-commerce business.

Before moving on, students should consider if there are any other resources or techniques that would be helpful to explore. Once they are finished, students continue to the Ideate stage where they will brainstorm ideas for their e-commerce storefront and business plan for selling their Glowforge products.

Ideate

In this stage, students will take what they learned in the Explore stage and brainstorm and experiment with different ideas for their e-commerce storefront and business plan. This stage allows students to explore as many ideas as possible without judgment. Remind students to consider how the cost of product, labor, and shipping will impact their pricing models as well as how customization might promote sales. To ensure that students have the knowledge and skills they need to complete this stage, use the following steps.

1. Use question prompts from the Ideate stage to help them brainstorm.
2. Encourage students to brainstorm ideas using one or more methods.
 - Allow students to brainstorm individually or in small groups to utilize multiple perspectives.
 - Provide students with examples of [different ideation strategies](#) to help them begin.
3. Inspire students to experiment with pricing models, customization techniques, and sales strategies to better meet the needs of their target market and increase revenue.
 - Allow students to experiment with customization using the [Glowforge app](#). Check out [Tip #8 from "Print Your Way to Profit"](#) to learn more.

At the end of this stage, students will have generated multiple ideas for their e-commerce storefront and business plan. They should be able to narrow their focus to develop an e-commerce storefront that meets their customers' needs and a business plan that promotes revenue growth.

Before moving on, students should consider which ideas will promote sales in a cost-effective manner and best acquire and retain customers. Once they are finished, students will continue to the Design stage, where they will draft a detailed e-commerce business plan and consider one or two ways that they will refine their product.

Design

In this stage, students will develop their ideas from the Ideate stage to draft a detailed business plan for their e-commerce storefront as well as create digital storefront mockups. Students should also consider one or two ways they can refine their Glowforge product to increase sales and improve profit margins. Encourage students to consider how their e-commerce storefront and product(s) differentiate them from competitors. To ensure that students have the knowledge and skills they need to complete this stage, use the following steps.

1. Use question prompts from the Design stage to help them refine their product, build their business plan, and create their storefront mockups.
2. Introduce, review, or model available design software options, including [the Glowforge App](#), if needed.
 - Assist students as they add engraved elements for customization and design props for marketing photography.
 - Review page 28 in the [Glowforge Educator Guide](#) for more software tools and information.
3. Provide students with [e-commerce web design tips](#) to help them think about user experience to drive sales as they develop digital mockups of their storefronts.
 - If students are designing their own website, rather than using an existing e-commerce platform, show them how to [create wireframes](#) to support the web design process.
 - After creating sketched wireframes on paper, have students try using Figma, Adobe XD, or Mockplus to create digital wireframes and mockups.
 - Part of improving your user experience involves making e-commerce storefronts accessible to all customers. Model how students can use the [Web Content Accessibility Guidelines \(WCAG\)](#) to increase accessibility.
4. Assist students as they develop their business plan.
 - Consider using a [business plan template](#) to provide students with a structured starting point.

At the end of this stage, students will have a finalized business plan and detailed mockups for their e-commerce storefront, as well as a plan to refine their Glowforge product to increase sales and improve profitability.

Before moving on, students should consider if they would like to revisit their business plan, storefront mockups, or product redesign further to change anything. Once they are finished, students continue to the Prototype stage, where they will develop a prototype of their storefront using their chosen e-commerce platform and following their business plan and brand identity. They will also refine and print an existing Glowforge product to test customization features and props for marketing photography.

Prototype

In this stage, students will use their business plan, chosen e-commerce platform, and one of their fully designed mockups to develop a prototype storefront. They will also refine and print their existing Glowforge product using customization features and Glowforge enhanced marketing photography to encourage sales. To ensure that students have the knowledge and skills they need to complete this stage, use the following steps.

1. Model how to use the Glowforge in a safe and efficient manner.
 - Review the [Glowforge safety guidelines](#).
 - Use [this video](#) to show students a demonstration of how to use Glowforge.
 - Remind students of any applicable classroom or school policies.
2. Use question prompts from the Prototype stage to help them develop their storefront prototype and refine their product(s).
3. Give students the time and resources needed to refine their Glowforge product(s). Then encourage students to test their product to ensure customizations meet their quality standards.
 - Provide students with access to Glowforge using a classroom print schedule to ensure that all students are able to produce their products.
 - Provide students with any additional supplies or materials they may need to assemble or add to their products.
4. Support students as they begin developing their e-commerce storefront.
 - Remind students to keep their target market in mind while they consider the [use of color, text, and imagery](#).
 - Remind students to test their interactive elements, such as buttons and calls to action, to ensure that customers have a good user experience when navigating through their storefront.
 - Remind students to consider the brand identity they developed in the [Marketing Magic Challenge](#).

At the end of this stage, students will have a finished e-commerce storefront as well as a refined product to sell in their store.

Before moving on, students should review their finished storefront to ensure it aligns to their business plan and promotes sales. Students may need to test their site or refine their product multiple times or even return to earlier stages of the design process before moving on. Once they are finished, students continue to the Evaluate stage where they will receive feedback on their finished e-commerce storefront.

Evaluate

In this stage, students will evaluate their e-commerce storefront and receive feedback from others. Feedback can be provided in pairs, small groups, or as a whole class. Encourage students to reflect on their process and consider their alignment to their original intent. To ensure that students have the knowledge and skills they need to complete this stage, use the following steps.

1. Encourage students to share and discuss their e-commerce storefront, product refinements, and business plan to generate feedback and suggestions from their peers to refine and enhance their efforts.
 - Use a peer feedback model, such as a [virtual gallery walk](#) or business pitch panel, to support students as they work in pairs, small groups, or as a whole class.
2. Provide students with the opportunity to gather feedback from members of their target market.
 - Host a virtual or in-person [pop-up shop](#) in which students share their e-commerce storefront with select individuals.
 - Depending on the settings within the selected e-commerce platform, students can send a private or public link to members of their target market.
 - Assist students in [generating customer feedback](#) by creating surveys, live chats, or in-person opportunities for product reviews.
3. Provide students with question prompts from the Evaluate stage of the challenge to help them evaluate their e-commerce storefront based on customer response.

At the end of this stage, students will be able to reflect on the strengths and areas for improvement of their e-commerce storefront. Students should determine whether revisions are needed and return to the appropriate stage in the design process to adjust their storefront. Consider assessing student work using one of the Assessment Suggestions or extending the challenge using provided Extension Activities.

Supplemental Supports

- Not sure what to sell? Students can use an existing Glowforge product of their own or develop a new one in the [Marketing Magic challenge](#).
- For students who need support identifying an appropriate price for their product, provide them with budget worksheets to help them calculate the costs of materials, shipping, and other expenses. Use the Glowforge [ROI spreadsheet](#) to help students work through pricing models.
- Have student privacy concerns based on student age and/or parental consent? Students can create mock e-commerce storefronts using slide presentations or digital drawings. You could also create an e-commerce storefront as a whole class and moderate the site yourself.

Assessment Suggestions

Overall Learning Reflection

Learning reflections allow students to reflect on their learning experiences, identify key concepts, and explain how they have grown throughout the process of developing their e-commerce storefront. Ask students to write or record a video about what they learned and how their learning will impact future e-commerce business ventures. Students can incorporate customer and peer feedback elements from the Evaluate stage to describe their strengths and areas for improvement.

Self-Assessment

Self-assessments allow students to reflect on their learning through portfolios, presentations, or learning journals that involve evaluating their own progress, reviewing feedback from the community, and identifying areas for improvement. Consider providing criteria to students prior to beginning the challenge that can be used by the student to reflect on their progress throughout the challenge. The criteria may include:

- Storefront Aesthetic: How well did I use color, imagery, and font on my e-commerce storefront to engage my customers?
- Understanding of Pricing: How will my pricing strategy lead to revenue growth?
- Storefront User Experience: How effectively were customers able to navigate through my storefront to complete a purchase?

Educator or Peer Assessment

Educator or peer assessments allow educators or students to review the quality and effectiveness of the finished print. The assessment can be based on specific criteria, such as design, pricing, and user experience, or use a more open approach like a gallery walk or artist showcase. Some criteria to consider may include:

- Design: Was the storefront designed in a way that entices customers and leads to customer acquisition and retention?
- Pricing: Is there a consideration of market value, production cost, and fulfillment cost when determining pricing strategy?
- User Experience: Were customers able to successfully navigate through the storefront and complete a purchase?

Extension Activities

Design challenges often inspire students to think about what's next. For some, this could mean connecting with people within the e-commerce industry or applying their skills in new ways. Here are a few ideas for how you can help students extend this challenge:

- Help students continue to grow their e-commerce storefront. Support them by teaching them to analyze business analytics, evaluate market trends, and assess growth potential. Bring in e-commerce experts to support student learning.
- Encourage students to create a full product line. This will require them to think more deeply about their brand identity, business plan, and storefront structure as well as the needs of their target market.
- Ask students to connect with a local business to develop an e-commerce business plan and storefront. Students will review their current business plan and adjust their plan to fit an e-commerce environment to expand their market.

If your students enjoyed this challenge, they might also enjoy [Waste to Wealth Challenge](#), a design challenge that encourages students to consider how to redesign products to maximize cost effectiveness while minimizing material waste.

The next challenge in the Entrepreneurship series is [Socials for Success](#).

Ready to take the Entrepreneurship series to the next level? Try the Capstone Challenge [Pitch It!](#), where students devise a business pitch for a unique design or product and present it to a panel of potential investors.