



University of
New Hampshire

Albacore Remote Learning

Albacore Park 600 Market St. Portsmouth NH

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Introduction

- The Portsmouth Submarine Memorial Association is a 501(c)(3) nonprofit organization devoted to preserving and spreading awareness of maritime history through their stewardship over the USS Albacore experimental submarine.
- PSMA seeks to expand their online presence by providing both synchronous and asynchronous online STEM based programming via the deployment of a remote learning website. This platform will provide outreach and educational opportunities to their community while assisting their organization with recovering lost revenues due to COVID-19.
- Goal:** For this project, our goal was to conduct research on the steps needed to create their vision, as well as develop a remote learning plan, and publish templates and lesson modules on their website.

Project Plan

- Management Methodologies:** Agile, Scrum
- Competitive research:** Research on similar websites provided by project sponsor.
- Strategic Plan:** Simple directory of the tools and services they plan to utilize. In each section the service is listed, followed by its respective pros, cons, price and a justification for why the service was chosen.
- Wireframes Diagrams:** Page layouts for each webpage.
- Development:** Implement the Remote Learning tab on Albacore website. Including: Homepage (sign in/ log in), Teacher modules, Student module templates and an FAQ page.

Requirements

Functional

- Welcome page, Teacher & Student pages/modules, FAQ/Help page, Sign-up & Donate page
- Teacher/Student navigation.
- Incorporated PDF handouts and other printable materials,
- Navigation buttons,
- Convenient operation, quick response.

Nonfunctional

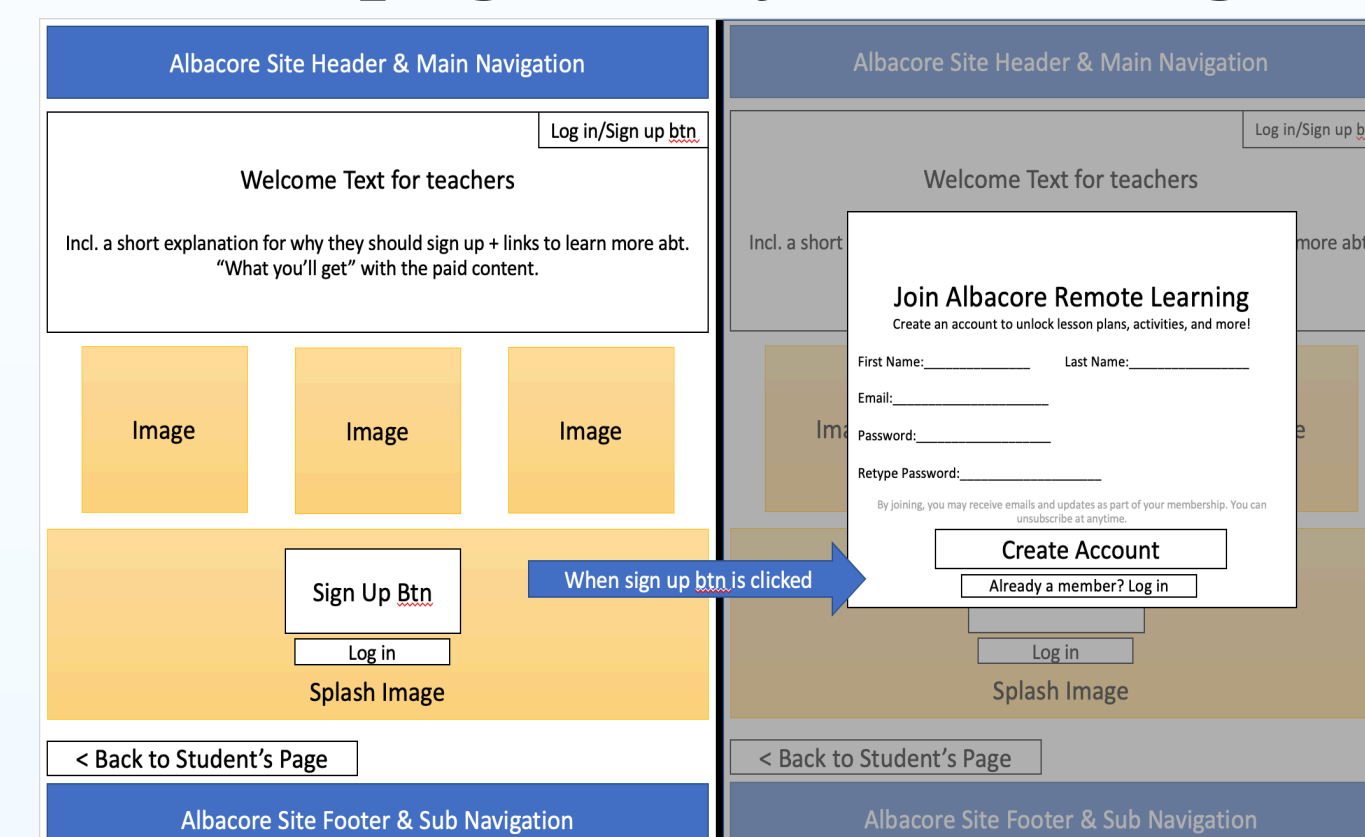
- Cost efficient
- Platform/services are readily available, familiar, easy to use, and provides the least barrier to entry for each user group (elementary/middle school/high school)?
- Provide these components in a technologically uncomplicated form so that they can be managed by anyone with little to no IT knowledge.

Architecture and Design

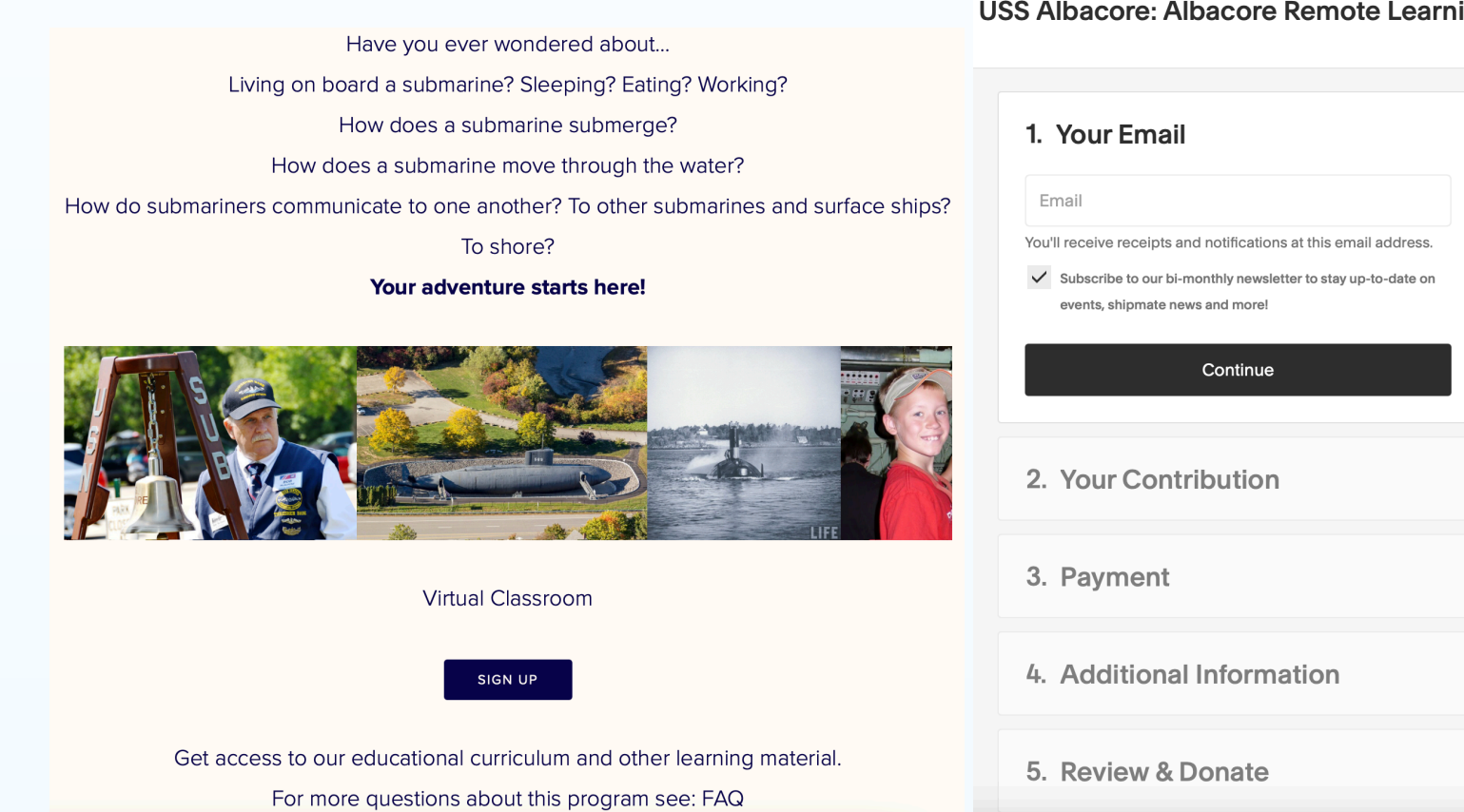
Homepage (Sign in / Log in)

Here is the homepage design we build for the remote learning tab on Albacore website. By clicking on sign in button user can make their own account with Albacore by providing their personal information such as first name, last name, email address, and their role (student/teacher). If someone already has account with Albacore, then they can easily log in. User must choose their role while creating account such as teacher or student.

Homepage Wireframe Design



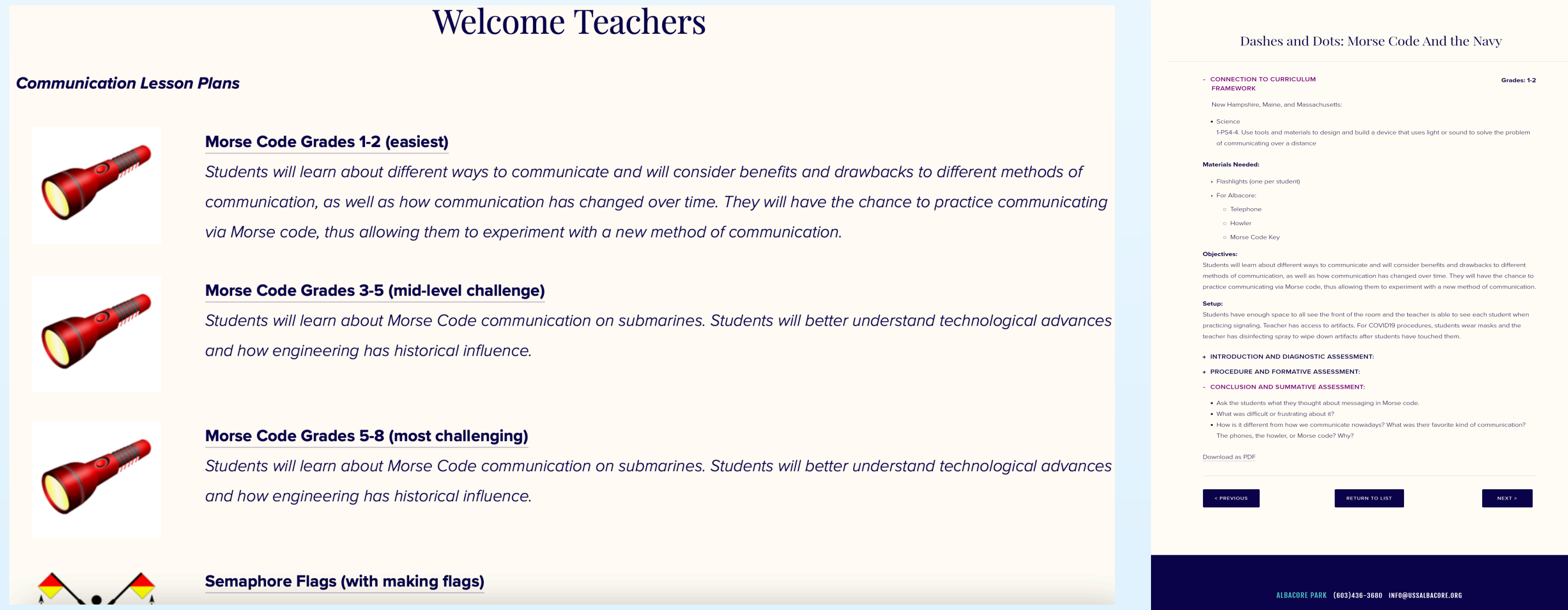
Homepage on Website



Teacher Modules

Here is Teacher Module Page on the Albacore Remote Learning website only for teachers. Titled each module according to the related material. The lesson plans are accessible by clicking on title of lesson plan or image. There is collapsed/expanded section inside each module, so that it does not look text heavy. We have used HTML, CSS, and JavaScript to build this page. PDF copy is available at the end of each page, where teacher can print the lesson plan. Previous, Return to list and next button at the end of each module.

Teacher Modules on Website



Technologies Utilized

Squarespace (Primarily): The main platform used for hosting, updating and maintaining the entire Albacore website. We built upon the existing Squarespace site to add our remote learning pages and features.

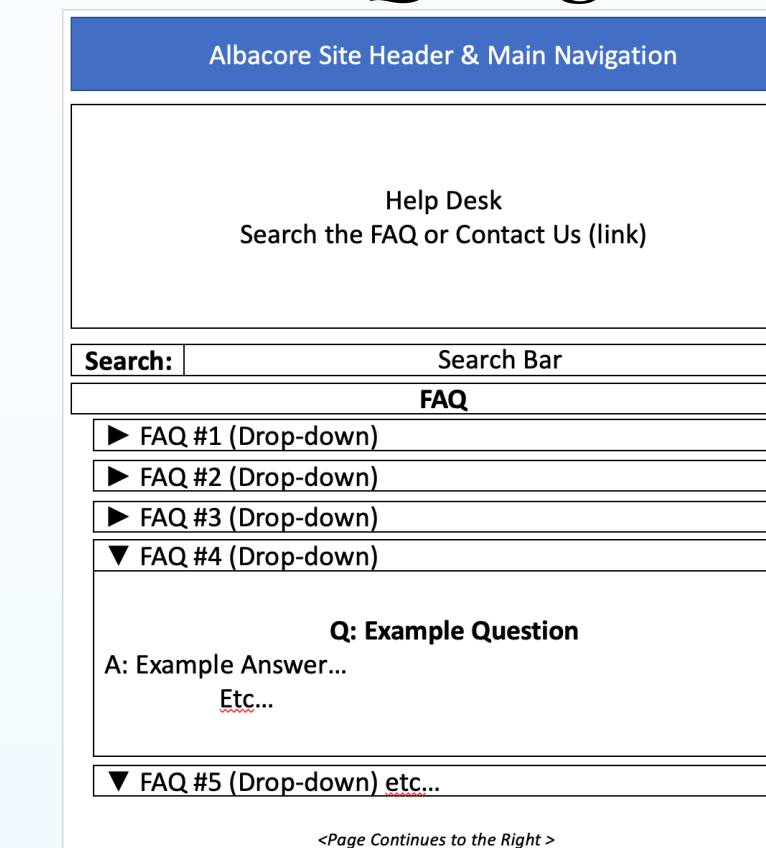
HTML & CSS: Used for adding custom code and styles to our webpages, such as, the blue header and side navigation in the student modules.

JavaScript: Used for identifying the beginning of a new dropdown text section in a Markdown block as well as dynamically changing the width of the text sections in order to show/hide each section.

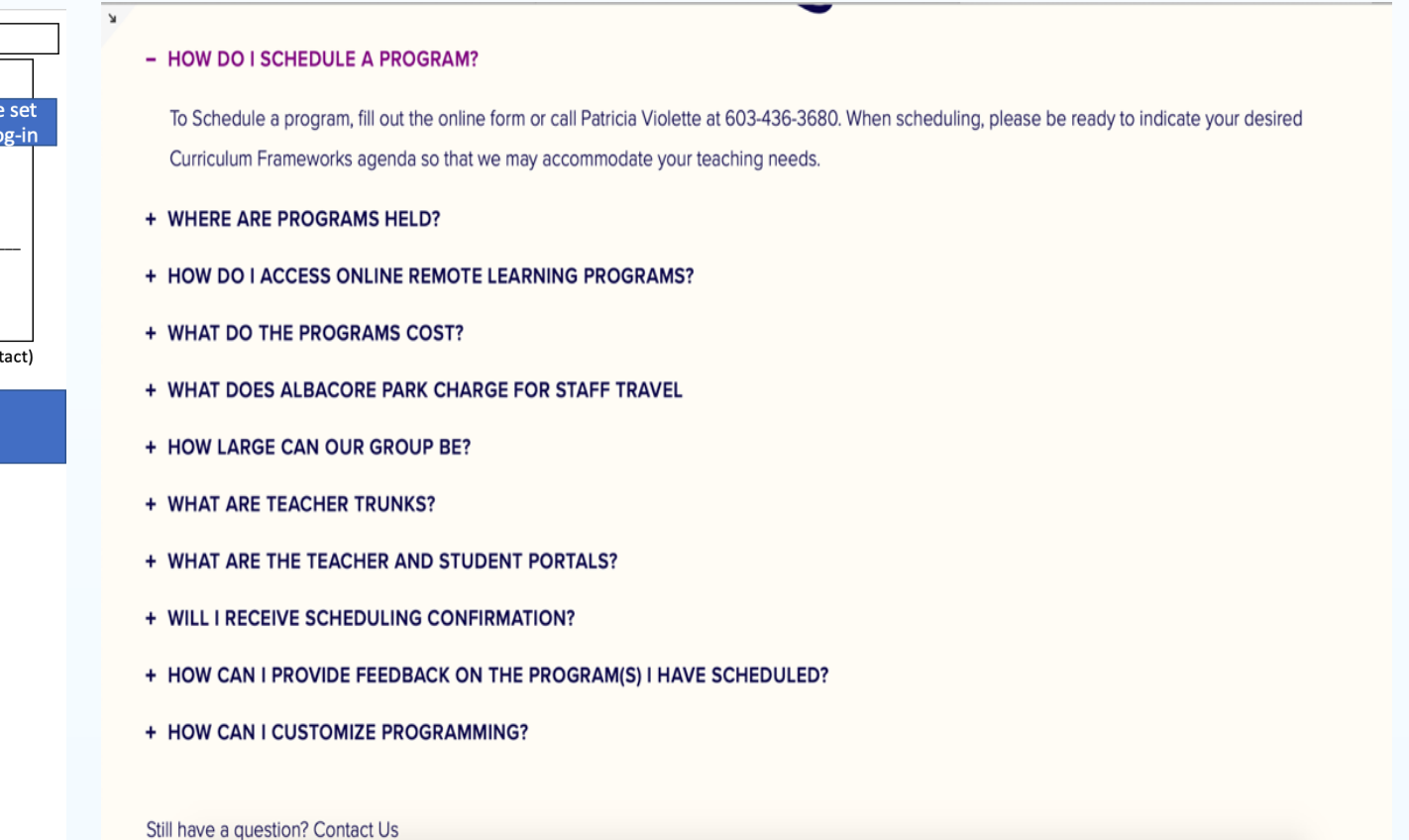
FAQ Page

Here is the FAQs page for the remote learning program on the Albacore website. A user of the website can find answers to common questions regarding the remote learning program on this page. Information such as, how to access remote learning program, what is the cost and more. The page is also connected to Contact Us page where user can submit their question or ask for technical help.

FAQ Page Wireframe Design



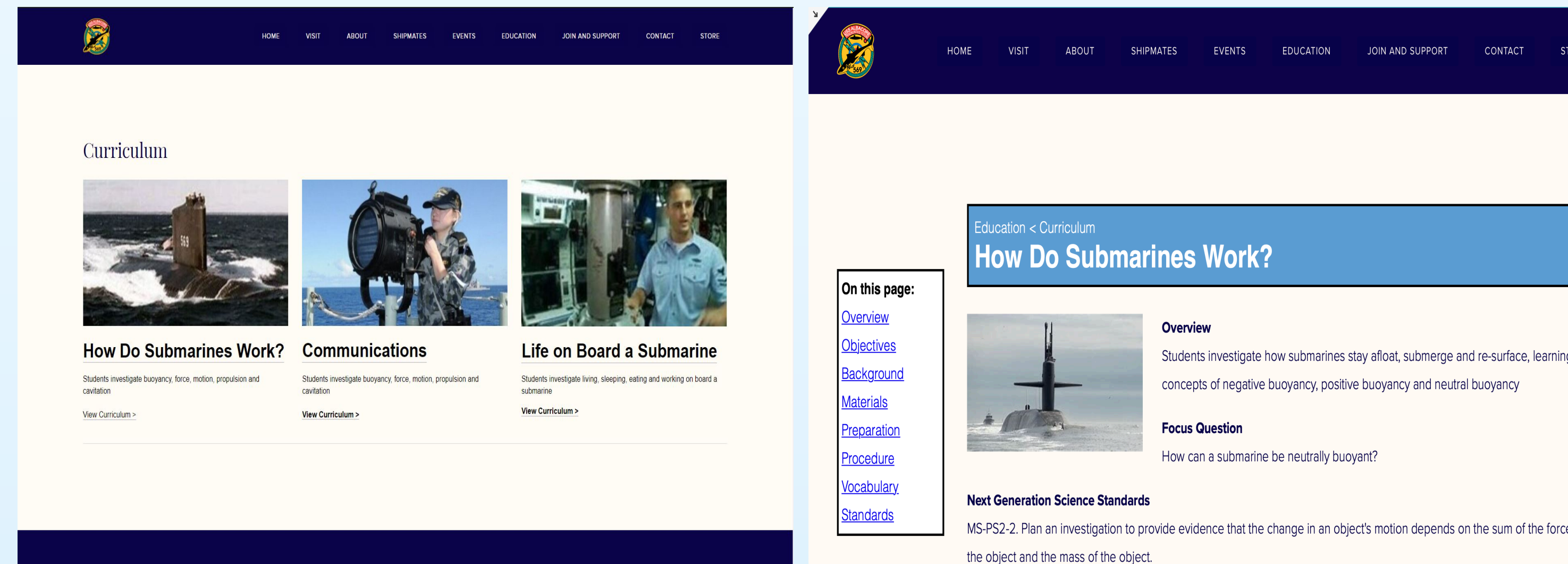
FAQs page on Website



Student Modules

Here is Student Module on the Albacore Remote Learning website. Each curriculum is labled according to the related material. The lesson plans are accessible by clicking on title of the lesson plan or image. Each lesson contains a blue header bar with the title for the lesson, and additional sections for each of the related material such as, Overview, Objectives, Background, Material, Procedure, Methods and more. Each lesson features a floating side navigation for easily navigating to these sections.

Student Modules on Website



Results & Conclusion

See more at: ussalbacore.org/remote-learning

This project has successfully laid the foundation for a functional, easy-to-operate website which is well integrated with the original existing web infrastructure. In the future, Albacore plans to utilize the strategic plan as well as the web framework we developed to institute a wide STEM curriculum with a variety of topics and courses being offered.

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