Web Challenge 2012

A Advance

Theme: Physics Concepts



A ADVANCE

Project Specifics

Name of the project	A Advance
Name of the team	Mountain Lions
Name of the school	Meadowcreek High School
Names of the students	Muhammad Osama Sakhi Viet Dang
Faculty Advisor	Pintu Thaker Pintu_thaker@gwinnett.k12.ga.us 770-806-2212

Overview of A Advance

A Advance is a website that provides an interesting spin on the dreaded physics that plague high school students, by explaining fundamental principles and how they relate to real life examples.

Audience

Physics is taught at a high school level but can be introduced earlier; therefore this website is directed towards those who are learning it but can also be used by anyone that enjoys learning about the concepts that make the world work.

Learning Objectives

To teach or assist in the learning of basic physics concepts and help establish a connection of how physics works in life.

Benefits

Not only can the audience increase their test scores, but also gain the ability to apply physics to life outside the classroom, such as sports.

Functional Design

The design of our website is functional in that it serves its purpose of delivering our website's content easily, even on mobile devices. We formed our site on the idea that this site should just as efficiently on a smartphone as on a laptop. We optimized code such as our slideshow code so it will work on any browser. The website has been tested on several browsers: Google Chrome, Internet Explorer, Mozilla Firefox, Safari Mobile Browser, Blackberry Mobile Browser, and Android Mobile Browser.

Functionality of the Website

The functionality of the website:

1. The website begins on the home page which informs users of the contents of the website
2. The about page of the website informs users of our purpose for making the site
3. The discover page and its subpages teaches users about the fundamentals of physics, our topic for the site
4. The experiment page and its subpages gives students ideas on how to experiment with what they've learned from the discover subpages.
5. The explore page combines the concepts and ideas of the discover and experiment pages as well as their respective subpages with one real life example of how the concepts are all used. The explore page also has an education video embedded within it.
6. The contact page has a survey embedded to receive user feedback. We can see responses to the survey through our connected email account and can maintain and improve the site as needed.

Navigation overview

There are buttons at the top to navigate through content, such as explanations and experiments. We also have buttons that connect to our Twitter and Facebook pages

Marketing Plan

While searching for a community on Facebook or Twitter dedicated to helping students with Physics, you will be able to find our pages on each respective site and be directed to our domain. You may even find our site on search engines such as Google, Bing, and Yahoo.

Production

The plan for making the system available is to make an account on an online host server site and publish the website through FTP software. FTP solutions will make it must faster and easier to upload large sites like ours.

Monitoring/Maintenance Plan

We will use the resources provided by the host server to handle any security and maintenance issues.

Ensuring proper usage

To make sure our site is used properly we have attached a survey onto our contact page. This way, we receive proper feedback about our site and can improve it as needed. The feedback received from users as well as the resources provided by the host server will help us determine how many visitors our site receives.

Analyzing results and effectiveness

We have a survey in our contact page where our audience can leave opinions and suggestions for us to improve our site.

What changes do you recommend

With the rapid evolution of technology, mobile devices may be the definite platform upon which websites may be built in the future. Currently, tablets are looked upon as the next big era in technology as they incorporate the best of both laptops and smartphones. By designing sites for mobile devices such as tablets, we are able to have a larger audience to display our website to than we would if the site simply worked on laptops and desktops.

E-learning Development Tools

We used embedded videos as our e-learning tools. They demonstrated our lessons effectively and helped our users understand our topics more thoroughly.

Lessons Learned

We learned that adding more lesson plans and even interactive worksheets could have helped our users learn more concepts as well as practice them on the spot directly through our website. We could have also slightly improved the aesthetics of our sub navigation on our discovery and experiment subpages.