



Functional Specifications: O'Neill Sea Odyssey v.2.3

based on Site Re-launch RFP v. 1.3

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Login Screen (# 1)

Page Functionality:

This is administration login page. There is one Module: Login.

Module 1: Login

The login will use the normal WordPress admin login. Additionally, there will be an .htaccess to protect this url.

There are only two inputs and one submit button on this page:

- username (alpha-numeric input) - This field will submit the username, which will be in standard text format. Required field. Limit 50 characters.
- password (alpha-numeric input) - This field will submit the Start Time information which will be in standard password format (●●●●●●●●●●). Required field. Limit 50 characters.
- submit button - Clicking submit will submit the form.

Error Checking

All fields must be filled out in order to login or an error message will result. A confirmation message will result if the entry is processed successfully.

Front End Application Form (# 2)

Page Functionality:

This is the Front End Application Form page. Users (perspective applicants) can fill out and submit an application on this page. There is one module: the Front End Application.

Module 1: Front End Application Form

There are sixteen inputs and one submit button on this page. The form plugin will be "Profile Builder Pro".

- Name (text input) - This field will submit the Name information. Text input, 250 character limit, "First Name, Last Name" format. Required field, followed by a link to Application Instructions #1.
- Position (text input) - This field will submit the Position information. Text input, 250 character limit. Required field.
- School or Group (text input) - This field will submit the School or Group information. Text input, 250 character limit. Required field, followed by a link to Application Instructions #1.
- District (text input) - This field will submit the District information. Required field.
- Address (text input) - This field will submit the Address information. Required field, followed by link to Application Instructions #5.
- City (text input) - This field will submit the City information. Required field.
- County (text input) - This field will submit the County information. Required field.
- State (pulldown menu) - This field will submit the State information. Pulldown menu with 50 items, one with

the initials of each state.

- Zip (text input) - This field will submit the Zip information.
- Grade Level (pulldown menu) - This field will submit the Grade Level information. Pulldown menu contains six items:
 - 4
 - 5
 - 6
 - 4/5
 - 5/6
 - Special Ed.
- Number of Students (numerical input) - This field will submit the Number of Students information. Numerical input, must be between 20 and 35. Required field.
- School or Work Phone (numerical input) - This field will submit the School or Work Phone information. Ten digit numerical input. Required field.
- Alternate Phone (numerical input) - This field will submit the Alternate Phone information. Ten digit numerical input. Optional field.
- Fax (numerical input) - This field will submit the Fax information. Ten digit numerical input. Optional field.
- Contact Email (alphanumeric input) - This field will submit the Contact Email information. Alphanumeric input, only accepts email characters. Required field, followed by a link to Application Instructions #6.
- Community Service Project (text input) - This field will submit the Community Service Project Information. Text input. Required field, followed by a link to community service project ideas.
- Submit Button - Clicking submit will submit the form

Error Checking

All required fields must be filled out in order to submit application or an error message will result, except for the 2 that are optional. A confirmation message will result if the entry is processed successfully and a confirmation email will be sent. Popup warnings will appear if Grade Level is not selected or if the Number of Students is not between 20 and 35 (unless Special Ed. is noted above).

Module 2: Database

This above data is submitted to the MySQL database. An email will go out to the applicant and the O'Neill administrator. The O'Neill administrator can review and edit this data in the back end administration panel (see "Admin Application Section (#3)).

Admin Application Section (#3)

Page Functionality:

This is the Admin Application page. Admin users can edit data submitted in the Front End Application Page.

Module 1: Applicants List

Once an Admin user logs in and then selects the "Applications", they will see a default list of all open applications, sorted by date (newest applications first). The fields shown are:

- Name (link to application)

- School
- City
- Grade
- Status
- Date Stamp - e.g., 5/15/12

A filter “Approved” will alternatively display approved applications, also displaying the same fields.

There is a search field to find an application. The search field will also search under:

- Name (link to application)
- School
- City
- Grade
- Status
- Date

The search results will display the same fields. The default display of all results will be 25 applications with a “next” and “previous” name link.

Module 2: Application Data

Once an application is chosen to be viewed, the user will see all of the fields and data, which can all be edited. In addition there is a new “Status” field, with a pull down with the different statuses.

- Name (text input)
- Position (text input)
- School or Group (text input)
- District (text input)
- Address (text input)
- City (text input)
- County (text input)
- State (pulldown menu) - default to CA
- Zip (text input)
- Grade Level (pulldown menu)
- Number of Students (numerical input)
- School or Work Phone (numerical input)
- Alternate Phone (numerical input)
- Fax (numerical input)
- Contact Email (alphanumeric input, with only .-@ allowed)
- Community Service Project (text input)
- Date of Field Trip (date input) - set to “nothing” as default. If Status is changed to “accepted” then this date field must be filled in. Dates that are already reserved in the database will show a grayed out view, and those with either an AM or PM will show partially grayed out views.
- Time of Field Trip (text input, numeric only) - with pull down of “AM” and “PM”
- Status - put in a stamp of which were selected and the date, showing status, date, time.
 - New Under Review (default)
 - Wait List

- Accepted NOT Scheduled
- Accepted
- Canceled
- Rejected
- Notes - free field for notes and reminders.
- Save Button- Clicking submit will submit the form

The Date field and Time field must be filled in, if the Status field is "Accepted". Selecting a date and time, and also "Accepted", and saving the form will have the system check to make sure that no other class is scheduled for that same day and time. If this check is successful, the record is marked as "Accepted" and the admin calendar will display the class info. If this check is not successful, the error message will state that the time and place is already taken.

Error Checking

All fields must be filled in, except Alternative Phone or Fax or Notes, or will error back.

Module 3: Application Settings

The Applications Settings will have one checkbox:

- Don't display Application page

Selecting this checkbox will not display the Application form on the front end, but instead display a text message.

Module 4: Automatic Emails

The Applications will email out a confirmation for the following status:

- New Under Review
- Wait List
- Accepted Not Scheduled
- Accepted

Each email will be unique based on content to come from client.

Module 5: Export CSV

The Export CSV module will download a CSV file based on a date range. There will be two sets of dates:

- Beginning Date
- Ending Date

Once the dates are selected, click on the "Download" button. This will download the file.

Error Checking

If the dates are not set correctly, the page errors back with:

Please select a correct date range.

Admin Class Trip Data Section (#4)

Page Functionality:

This is the Admin Data Section page. Admin users can enter field trip data for each class and make edits later if desired. Data will show up on the front end Trip Data Section. The search is in Section #3 Module #1.

Module 1: Class Trip Data



After the class trip, the Admin can enter the data. At the top of the page, there will be the following class info:

- Class Name - Link for the Admin users
- City
- Grade
- Date - defaults to nothing, selecting this will default to today's date.
- Time




Under the class info there will be 3 links for each type of data:


- Navigation Data - name will be link to the data
- Marine Bio Data - name will be link to the data
- Ecology Data - name will be link to the data

There will be no delete function (ignore from screen shot), user must go into each area and manually delete any data, to protect from accidental removal.

Click on the  to delete or  to edit current class report.

class name / view reports	city	grade	date	time
Allen@Steinbeck-Webster	San Jose	5	Friday, March 30, 2012	08:30 AM

Navigation Data	  	
Marine Bio Data		
Ecology Data		



Module 2: Navigation Station Data

The data fields are:

- Group Name - text field - alpha-numeric, e.g., Abalone/Crab
- Measurement Time - pull downs for hour, minutes, and AM/PM.
- Measurement Date - date field
- Bearing #1 - text field - numeric - degrees & pull down with:
 - Coconut Grove
 - Mile Buoy
 - Radio Towers
 - Soquel Point
 - Santa Cruz Wharf
 - Harbor Lighthouse

- Steamers Lighthouse
- Government Buoy
- Dream Inn
- Seal Rock
- Giant Dipper
- Wharf Elbow
- Black's Point
- Bearing #2 - text field - numeric - degrees & pull down with:
 - Cocoanut Grove
 - Mile Buoy
 - Radio Towers
 - Soquel Point
 - Santa Cruz Wharf
 - Harbor Lighthouse
 - Steamers Lighthouse
 - Government Buoy
 - Dream Inn
 - Seal Rock
 - Giant Dipper
 - Wharf Elbow
 - Black's Point
- Bearing #3 - text field - numeric - degrees & pull down with:
 - Cocoanut Grove
 - Mile Buoy
 - Radio Towers
 - Soquel Point
 - Santa Cruz Wharf
 - Harbor Lighthouse
 - Steamers Lighthouse
 - Government Buoy
 - Dream Inn
 - Seal Rock
 - Giant Dipper
 - Wharf Elbow
 - Black's Point
- GPS Latitude - 3 text fields - degrees (3 numeric), minutes (2 numeric), 1000s (3 numeric)). Data can be zero, default is no data.
- GPS Longitude - 3 text fields - degrees (3 numeric), minutes (2 numeric), 1000s (3 numeric)). Data can be zero, default is no data.
- Weather Observation -pull down with:
 - light fog
 - heavy fog
 - sunny
 - partly cloudy
 - overcast
 - light rain
 - heavy rain
- Wind Speed - text field - numeric - knots

- Depth- text field - numeric - feet

Do not put in “Calculated latitude” and “Calculated longitude” which is in the screen shot.

An “Add Group” button will reload the page with a new group dataset so the admin can have multiple groups for each trip.

Editing a report:

class name: Amesti; Watsonville; Ca

Navigation Station Data Entry:

Group Name:

Measurement Time: :

Measurement Date:

Bearing # 1: ° degrees/

Bearing # 2: ° degrees/

Bearing # 3: ° degrees/

GPS latitude: ° ' " (degrees, minutes, 1000s)

GPS longitude: ° ' " (degrees, minutes, 1000s)

Calculated latitude: ° ' " disabled

Calculated longitude: ° ' " disabled

Weather Observation:

Wind Speed: knots

Depth: feet

Module 3: Biology Station Data

The data fields are:

- Group Name - text field - e.g., Abalone/Crab
- Measurement Time - pull downs for hour, minutes, and AM/PM.
- Measurement Date - date field
- Surface Temperature - text field - degrees Fahrenheit
- Seawater Depth - text field - feet
- Seawater Visibility - text field - feet
- Seawater Salinity - text field - ppt
- Plankton Sample - text selection - Options:
 - mostly zooplankton

- mostly phytoplankton
- about half and half
- Plankton Notes - text field (250 characters)
- Seawater Color
 - brown
 - blue
 - red
 - green
 - yellow-green
 - blue-green

All fields are optional.

An “Add Group” button will reload the page with a new group dataset so the admin can have multiple groups for each trip.

Editing a report:

class name: Allen@Steinbeck-Webster; San Jose; Ca

Biology Station Data Entry:

Group Name:

Measurement Time: :

Measurement Date:

Surface Temperature: degrees Fahrenheit

Seawater Depth: feet

Seawater Visibility: feet

Seawater Salinity: ppt

Plankton Sample:

Plankton Notes:

Seawater Color:

Module 4: Ecology Station Data

The data fields are:

- Measurement Time - pull downs for hour, minutes, and AM/PM.
- Measurement Date - date field
- Otter Count - text field - numeric only
- Seawater pH - text field - pH

All fields are optional.

Submit buttons:

- Enter - saves data to database
- Cancel - reloads the "Class Trip Data" page

Page will have "class name" at top with location "city" and "state"

Editing a report:

class name: Allen@Steinbeck-Webster; San Jose; Ca

Ecology Station Data Entry:

Measurement Time: 08 : 30 AM

Measurement Date: 3/30/2012

Otter Count: 4

Seawater pH:

ENTER CANCEL

Front End Class Trip Data Section (#5)

Page Functionality:

This is the Front End Data Section page. Site users can view data from past trips.

Module 1: Class Trip Page

Once the data is entered in the admin and at least one section is saved, the results are shown on the front end. The classes are sorted by data, with the newer trip dates first.

- Class Name/Group - Group links to detailed data page, see Module #2
- City
- Grade
- Date/Time

Remove "Participant Comments" & "Class Photographs" that are present in the screen shot.

The Page will have 20 classes on each page with a "next" and "previous" link at the bottom.

VIEW DATA FROM PAST TRIPS

- community service project

- class photographs

- participant comments

Expand your knowledge...

Click Here for Educational Resources on Marine Biology, Ecology and Navigation.

record 1 through 20 out of 143 [next](#) ▶

class name/group	city	grade	date/time
El Gabilan Blue Whales Minkie Whale Orcas	Salinas	5	April 27, 2012 12:00 PM
Allen at Steinbeck Abalone/crab	San Jose	5	April 27, 2012 08:30 AM
Rio Del Mar Blue Whales Humpback gray whale	Aptos	6	April 26, 2012 08:30 AM
El Granada Blue Whales Grey Whales Humpbacks	Half Moon Bay	5	April 26, 2012 12:00 PM
Kammann Gray Whale Blue Whale Orca	Salinas	combo	April 25, 2012 08:30 AM
Kammann crabs Sea stars	Salinas	5	April 25, 2012 12:00 PM

Module 2: Class Group Data Page

Each Class Group will have it's own detailed Class Group Data Page. The data will be grouped by type of data

- Navigation Data
- Biology Data
- Ecology Data

To the right of each data area: Navigation Data, Biology Data, and Ecology Data, there will be an icon that will link to the "Learning Stations" Module. Use Icons from Learners Page, mouse over the name of item, bearing, and get a layer of Learning section.

VIEW DATA FROM PAST TRIPS

Rio Del Mar - grade 6 - group "Blue Whales"
Trip was held and data were collected on **Thursday, April 26, 2012**

[see community service project](#)

[Back to classes listing](#)

Navigation Station Data Entry:

Measurement Time: **10:30 AM**
Measurement Date: **Thursday, April 26, 2012**
Bearing #1: **80°** Location: **Soquel Point**
Bearing #2: **60°** Location: **Radio Towers**
Bearing #3: **340°** Location: **Harbor Lighthouse**
GPS latitude: **36° 57' 23"**
GPS longitude: **122° 00' 11"**
Weather Observation: **partly cloudy**
Wind Speed: **16 knots**
Depth: **28 feet**

Biology Station Data Entry:

Measurement Time: **08:30 AM**
Measurement Date: **Thursday, April 26, 2012**
Surface Temperature: **56 degrees Fahrenheit**
Seawater Depth: **30 feet**
Seawater Visibility: **7 feet**
Seawater pH:
Seawater Salinity: **ppt**
Plankton Sample: **about half and half**
Plankton Notes: **copepods, centric diatoms**
Seawater Color: **green**

Ecology Station Data Entry:

Measurement Time: **08:30 AM**
Measurement Date: **Thursday, April 26, 2012**
Otter Count: **5**
Seawater pH: **7.9**

Module 3: Learning Stations Layer

This content will be shown as a layer unlike the current site which is a pop up window. The layer will show the navigation on the right side that reloads the page with new content like the current page.

The questions at the bottom should reload the page with the appropriate answers.



Marine Biology: SURFACE TEMPERATURE

The sea temperature data that your class took on the boat is called a surface temperature reading. Do you remember looking at the temperature gauge on the mast of the boat? The temperature gauge is connected to a thermometer at the bottom of the boat, just under the surface of the water.

The Monterey Bay is in a temperate zone; it is an area of the earth mid-way between tropical and cold temperatures.



The temperate zone is a very comfortable place for plants and animals to live. Due to the Monterey Bay's geographic location, there is a wide variety of animals living in and migrating through it, like the California Gray Whale.




Learning Stations

- **Marine Biology**
 - Date
 - Surface Temperature
 - Depth
 - Salinity
 - Plankton
 - Visibility
 - Sea Color
- **Marine Ecology**
 - Otter Count
 - pH
- **Navigation**
 - Time
 - Weather Observation
 - Wind Speed
 - Depth
 - Bearings
 - Latitude and Longitude
 - GPS

GEOGRAPHIC LOCATION
A specific place on earth. The identification of a specific area in relation to what lies around it.

MIGRATE
The process of moving from one region to another with the change of seasons or climate.

SPECIES
A reproductively isolated group of interbreeding organisms.

SURFACE TEMPERATURE
The temperature of the layer of sea water nearest the atmosphere.

TEMPERATE ZONE
An area of the earth that is mid-way between tropical and cold, usually found in the mid latitudes. An area where the weather patterns are identified by a lack of extreme temperatures.

Calendar Application (#6)

Page Functionality:

This is the calendar page. There is one Module: Calendar.

Admin sign in for crew staff only

Guest admin for calendar

Module 1: Months

The Calendar section will display a WordPress calendar, to navigate to any month and year. Once a month and year is chosen, the full month will be displayed with the following fields shown for each Class entry:

- Date (date format, numeric input) - This field will submit the Date information, which will be in standard date format (MM/DD/YY). Required field.
- Charter length - the length of the field trip, e.g., OSO-3
- Start Time (four digit numeric input) - This field will submit the Start Time information which will be in standard four digit format (HH:MM). Required field.
- Title (text) - This field will submit the Title information. Text input, 250 character limit. Required Field.
- Grade - Number of the grade, e.g., 5
- Location - The city of the class.
- Description (text) - This field will submit the Description information. Text input. Required field.

Because the calendar is populated automatically from the Application area, there is not data entry area here.

This calendar may optionally be displayed on the front end at a later date if desired.

Admin can manually add events to calendar like holidays or special events. The events can have the same fields as the normal class trips above.

Front End Supporters (#7)

Page Functionality:

This is the Front End Sponsorship page. Users can view Sponsors on this page. There is one Module: Sponsors.

Module 1: Sponsors

The Sponsors are displayed here in two columns: Sponsor Name on the left and corresponding Level on the right. The list of Sponsor Names is organized by Level (), with each subgroup of names listed alphabetically. "Beneath the Surface" will link to the community project.

Admin Supporters (#8)

Page Functionality:

This is the Admin Sponsorship page. Admin users can view, edit, and delete Sponsors on this page. There are two Module: Sponsors & Add a Sponsor.

Module 1: Sponsors

The Sponsors are displayed here in a list alphabetically by name. Next to each name, there are two action buttons:

- edit - clicking this button will open the form for that Sponsor
- delete - clicking this button will delete the Sponsor

There is a link to add a new sponsor. Clicking this link goes to the Add New Sponsor Page.

Error Checking

When a user clicks "delete Sponsor," prompt the user to confirm before deleting.

Module 2: Add a Sponsor

There are only two inputs and one submit button on this page:

- Name (text input) - This field will submit the Name information. Text input, 250 character limit. Required field.
- Level (pulldown menu) - This field will submit the Level information. The pulldown menu contains five items:
 - Jack's Circle
 - Chair's Circle
 - Director's Circle
 - Admiral's Circle
 - Commodore's Circle
- Submit Button - Clicking submit will submit the form

Error Checking

All fields must be filled out in order to create a new Sponsor or an error message will result. A confirmation message will result if the entry is processed successfully.

Front End Sponsorship (#9)

Page Functionality:

This is the Front End Sponsorship page. The sponsorship information will be displayed.

Module 1: Sponsors Page

The Sponsors are displayed here in a list alphabetically first by sponsor type, then alphabetically by name. The sort order for the sponsor types are:

- Jack's Circle
- Chair's Circle
- Director's Circle
- Admiral's Circle
- Commodore's Circle

These are displayed, there are no links associated with these sponsors. See screen shot.

Error Checking

None.

Sponsors

Sponsor Name	Sponsor Level
Harry Hind	Jack's Circle
Jack O'Neill	Jack's Circle
O'Neill, Inc.	Jack's Circle
Team O'Neill	Jack's Circle
The David & Lucile Packard Foundation	Jack's Circle
California Coastal Conservancy	Chair's Circle
City of San Jose Healthy Neighborhood Venture Fund	Chair's Circle
City of San Jose LEARNS Program	Chair's Circle
City of Santa Cruz	Chair's Circle
City of Scotts Valley	Chair's Circle
City of Watsonville	Chair's Circle
County of Santa Cruz	Chair's Circle
Harden Foundation	Chair's Circle
Monterey Peninsula Foundation	Chair's Circle
Pacific Gas & Electric Company	Chair's Circle
Toyota USA Foundation	Chair's Circle
US Department of Education	Chair's Circle
Wildlife Conservation Board	Chair's Circle
The Adam Webster Memorial Fund	Director's Circle
American Honda Foundation	Director's Circle

Admin Users (# 10)

Page Functionality:

This is the Admin Users page, where additional admin users can be created and edited. Admin users can view, edit, and delete Sponsors on this page. There are two Module: Users List and Users Info.

Module 1: Users List

The current Users are displayed here in a list alphabetically by name. Next to each name, there are two action buttons:

- edit - clicking this button will open the form for that User
- delete - clicking this button will delete the User

Under the list, there is an "add" link to add a new user

Error Checking

When a user clicks "delete User," prompt the user to confirm before deleting.

Module 2: Users Info

Once a user is edited or added, the following fields are present:

- Name - Name of the user
- Access Level - The following types of users:
 - Admin User - can access entire admin area (Laura, Dan, Adam)
 - Staff User - can access calendar view only, no edit privileges. Can do scientific data entry.
 - Guest User - can access calendar view only, no edit privileges.
- Password - Create password for user, user may not reset their own password.
- Save (button) - Saves data

Error Checking

All fields are required.

Admin Blog (# 11)

Page Functionality:

This is the Admin Blog page, where the article is created. We will use the normal WordPress blog plugin. The front end blog will be on the Blog page. Client needs to be able to upload one photo and write text.

Security Recommendations (# 12)

Security Features:

We will put an htaccess file to protect the CMS admin login to keep hackers at bay. We recommend also having the server admin put an SSL Digital Certificate to encrypt the passwords.