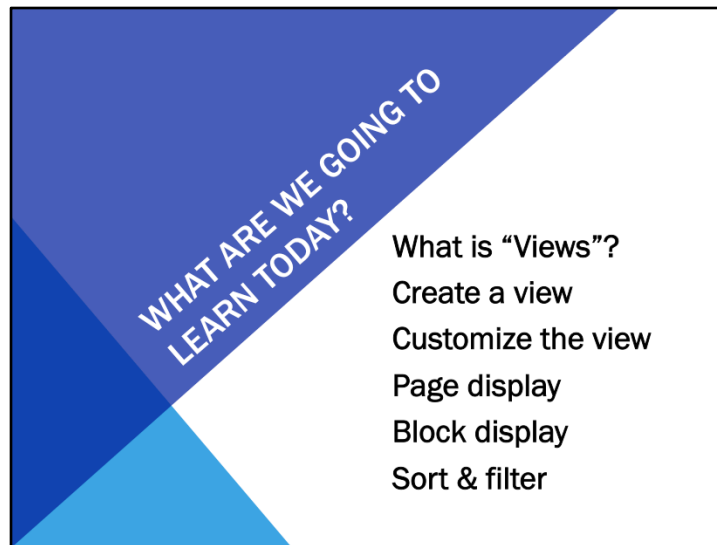




View is one of the most powerful tools  
What sets it apart from WP, others  
Dynamic lists



What “Views” is and why you’d want to use it. This is an intro.  
How to create a new view using a quick wizard  
How to customize your view to display specific fields  
How to make a page display with a specific path  
How to make a block display and place it in specified areas  
How to sort and filter your list of content



You already have a Drupal 7 site  
It has content  
The content has different fields, like title, image, description, and  
and a category field, in this case an entity reference to the taxonomy vocabulary for campus area.



### Build Queries from a Database

This is in contrast to manually putting information on each page every time you add something new. There used to be no such thing as creating a list that automatically updates whenever you add new content. You add content normally, and Drupal places it where you've told it to automatically, with the fields you want, and in the format you desire.

## CUSTOM DATABASE QUERY

Title	Content Type	Author
Yale Archeologist Finds New Dinosaur	News	Susan
DrupalCamp 2016	Event	Nancy
Lunch	Event	Bobby
About Us	Basic Page	Nancy
Contact Us	Webform	Susan
FAQ	Basic Page	Tim
Restaurant Week Returns!	News	Susan

1. You may want to list only content of the type “News”

2. You may want to list all content authored by Nancy

You can do both of those things with Views- Drupal will do it automatically for you.

In this way you can create custom lists of content – views offers many ways to filter, select, and sort content, users, or taxonomy terms.

## HOW CONTENT CAN BE DISPLAYED

**Titles**

**List of Pages**

- Page one
- Page two
- Page three
- Page four
- Page five
- Page six

**Fields in a table view, sortable columns**

Author	Date	Type
Anna	12/1	News
Anna	3/17	Event
Bob	5/20	Event
Carol	2/28	News
Dan	9/15	Basic Page

**Custom fields with custom display (teaser-list)**

**All Buildings**

**Hall of Graduate Studies**

This is the location of the Center for Teaching and Learning as well as the contains academic department and faculty offices, as well as classrooms a heading.  
Era: 1910-1950  
Neighborhood: Broadway

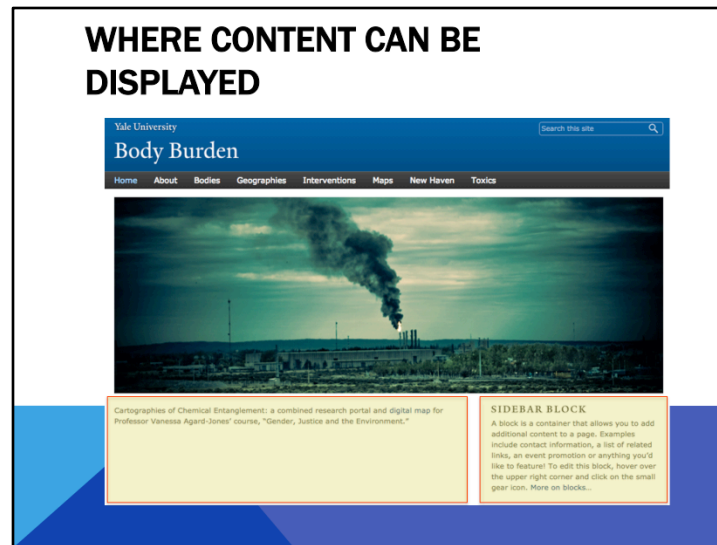
**360 State**

360 State Street is a 300-foot (91 m) residential skyscraper completed in Connecticut. It is the second-tallest building in the city, and the tallest in state.  
Era: 1960-Today  
Neighborhood: Ninth Square

**Sterling Law Building**

Sterling Law Building houses the Yale Law School. It is located at 127 W. Connecticut, close to the downtown area, in the heart of the Yale campus.  
Era: 1910-1950  
Neighborhood: Broadway

- Views can then output different displays of these results, for example
- 1 Titles in a bulleted list
  - 2 Fields in a table view, sortable columns
  - 3 Custom fields with custom display (teaser-list)



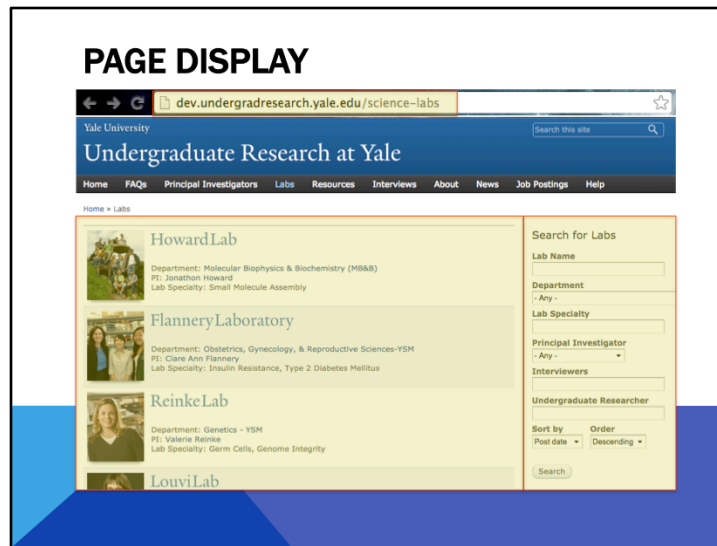
You can then output those lists as a block or a page

Drupal sites are divided into different regions

1. This is the content region

2. This is the sidebar second region. there's also a sidebar first which we're not using here

For example, if you want to place certain content on the sidebar of your site, you would create a block display and in the block settings, place it in the sidebar second region.

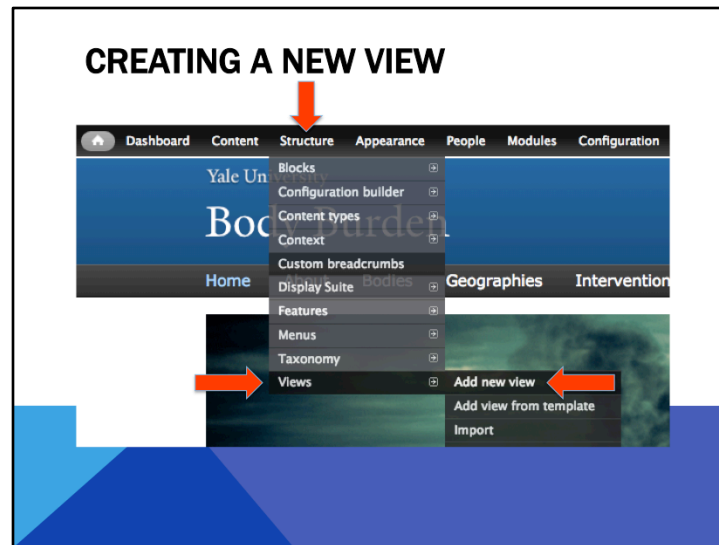


Using a page display, you can make a custom path on your site with the results of your view (0)

The page display only affects the content in the main area (1), but you can change what appears in other regions with blocks, like appearing in Sidebar second (2)

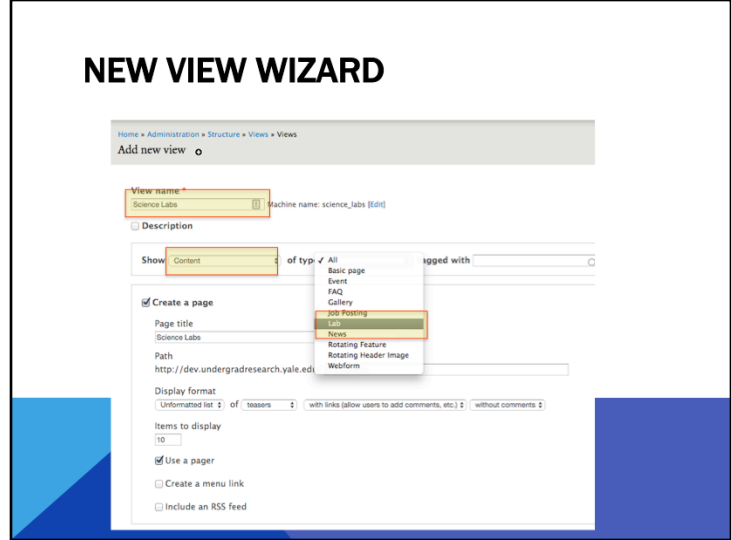
Views is great because you create a view – you determine what you want to display - and use the display types, like pages or blocks - to control how the material is displayed. Then you can tell Drupal where you want the page or block to appear or not appear. You don't have to update every page the block appears on when you add something new, Drupal is smart enough to automatically do this for you!





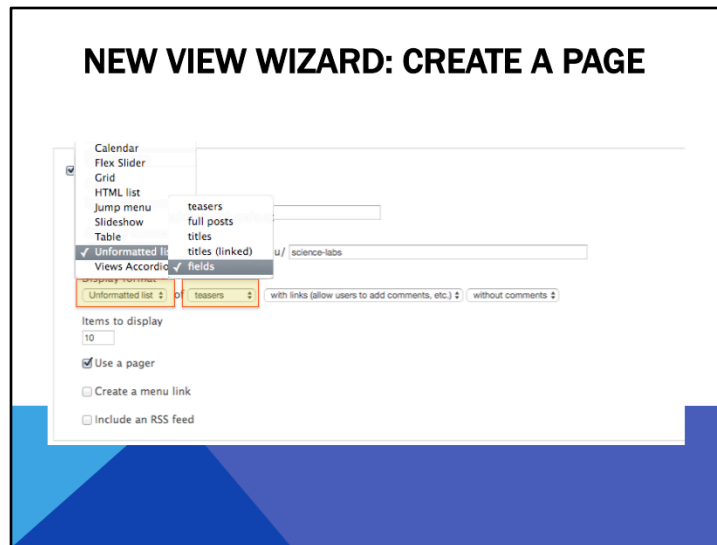
1. Structure > 2. Views > 3. Add new view

Structure > Views is also where you would find views you've already created



For this example we are going to create a new view with a listing of all science labs I've added to the site.

1. First we name the view
2. Then for the type of entity to show, leave it as Content
3. We'll select Lab as the type of content we want to show



In the Create a Page section, we'll Display format as "Unformatted List" (0).

1. Here's where you have options like displaying your view as a table, list, etc.
2. Instead of teasers, we'll select fields. This will allow us to customize what aspects of the content we want to display, like the title, image, short description, etc.
3. You can leave the rest of this section as default.

## NEW VIEW WIZARD: CREATE A BLOCK

Create a block

Block title  
Science Labs

Display format  
Unformatted list of titles (linked)

Items per page  
5

Use a pager

Scroll down, and (1) check the box to create a block and leave everything else as default. For this block, all I want is a listing of all the Lab names that I'll place in the sidebar of my site, so I will leave the (2) Display format as Unformatted list of titles (linked) Then (3) click the Save & exit button. Don't worry if you make a mistake, you can always go back and change things if you want.



You will be brought to a page containing the titles of all the labs. You'll notice the view page's URL (1) is the name of the view.

But we want a page that lists the title, image, short description, and website for the labs

Also, this view only lists 10 labs at a time, the rest of the labs can be accessed by

2. clicking the pager buttons at the bottom. But we want a page that lists all the labs, not just 10.

To make these changes, we'll edit the view we just created.

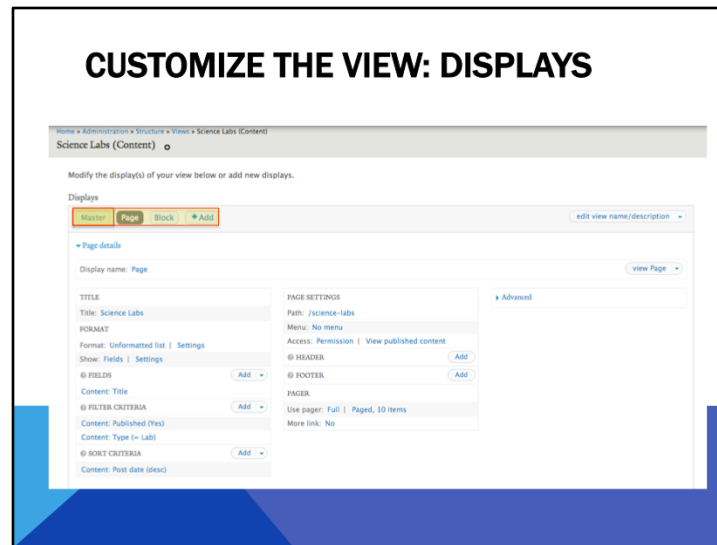
To do this, hover your mouse over the top corner of the view area (3)

And you'll see a gear pop up (4) with a dotted line square around the view you're editing

5. Click that gear, then select Edit View.

----- Meeting Notes (3/24/16 09:42) -----

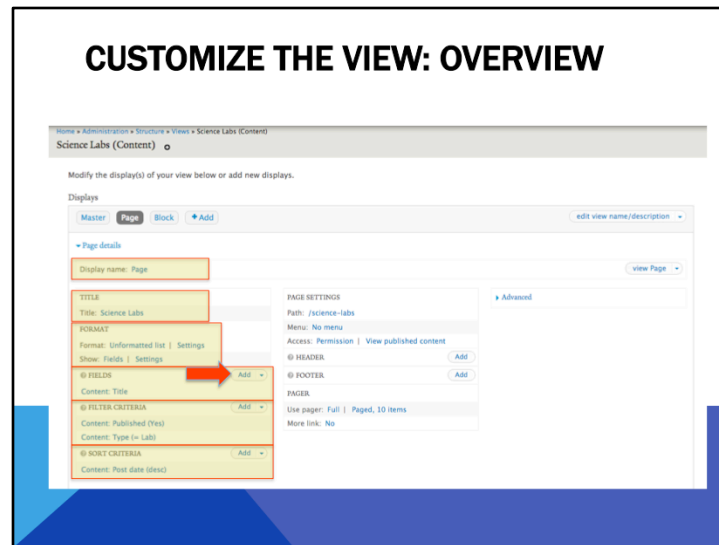
view... underneath all the titles?



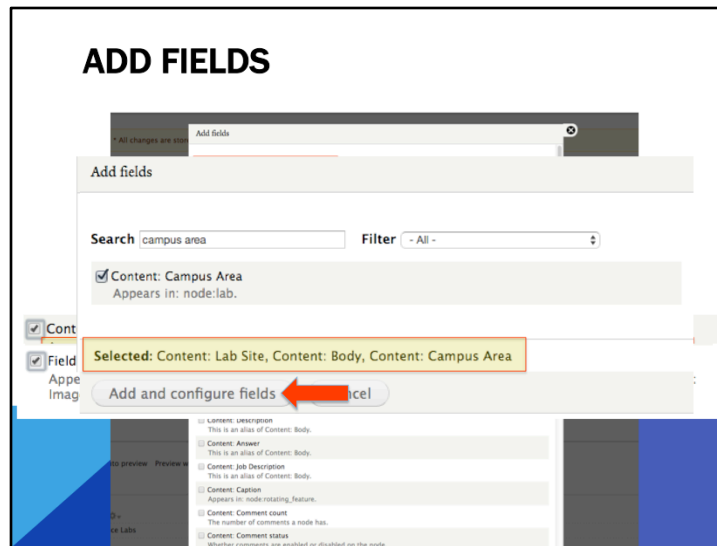
Here you can customize your view.

This might look like it's really complicated, but once you get to know how to control it, you'll find that you have an amazing amount of customizability at your fingertips.

1. Up here at the top you'll see the different displays. They describe the display type, like Page or Block. You can also make multiple pages or blocks to further customize your lists for different purposes or areas on your site.
2. There's also the master view, which will control all the other views. It's a good place to start if you want to make changes that pertain to all views, but right now I just want to make changes to the page view to add the custom fields so I'll stay here.



- In the left-hand column you'll see options for (1) changing the display name of the view (what shows up in the tab) (2) or the title of the view, which will show up as the title of the view page or block. Underneath you'll see (3) formatting options. We chose these earlier in the wizard, but you have the option to change them now
4. Under that there's a section for choosing which fields you'd like to show. Right now it's only showing the title- "Content: Title" refers to the title of the Lab. We'll add additional fields, like image and description here.
  5. Next is Filter Criteria. Think of this section like a search- Views will only show you items that match the criteria you list here. By default it only shows published content and we selected to show the Lab content type earlier. If you have additional fields you'd like to 'search' on, you can add them here.
  6. The last section in the left column is Sort Criteria. This section determines what order you want your content to display in. By default it's sorted newest to oldest, but you can change this to alphabetical by title, oldest to newest, by author, etc.
  7. First thing we're going to do is click Add to the right of Fields to add more fields to the view.



The Add Fields window will open, where we can search for the fields we want the view to display. You can type in terms in the (1) Search box at the top to make it easier to find the fields you want.

We'll put checkmarks next to

2. Content: Body- this is the description of the lab. We can tell where this field appears by looking underneath it (3)- the node we're using is Lab. This is a useful useful to check in case there are multiple fields with similar names that appear on different content types. Here we can make sure we are selecting the correct one. You can also see what other names this field might have.

4. Field: Image- this is the main image of the lab

5. Content: Lab Site- Lab site and website are the same thing (6), just need to check one

7. Add Campus Area

8. You'll notice that all the fields we've selected are being added to the bottom here

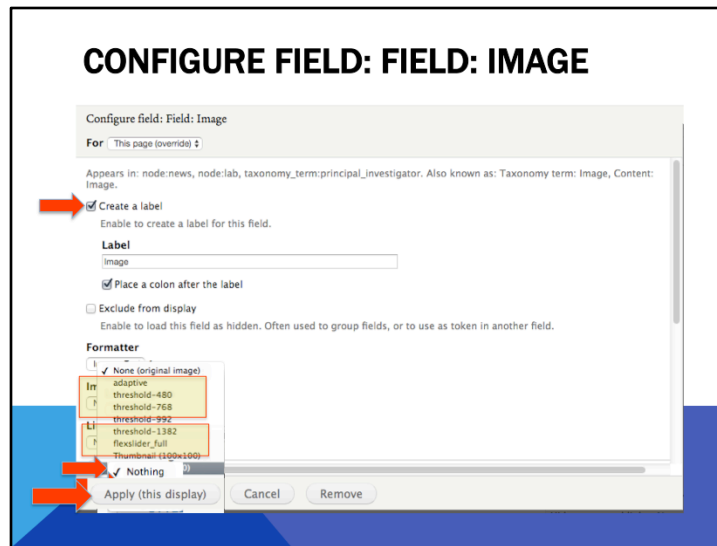
9. Then click Add and configure fields at the bottom to go to the field settings.





This is the configuration screen for the body field, otherwise known as the description.

1. First, uncheck 'Create a label'. We don't need to tell people this is the body.
2. You can leave the rest of the options as is.
3. Before clicking Apply, note something very important- the button actually says "Apply (all displays). If you click this button, you'll add the Body field to all your displays, including the Block. Since we don't want to do that, be sure to change the (4) drop-down at the top to (5) This page (override) and then (6) click the Apply (this display) button.



1. Again, uncheck the Create a label box.
2. Under Image Style, select Medium. This will give us a good starting size.
3. Under Link Image to, select Content. This means that when someone clicks the image, it will take them to the Lab page.
4. Leave everything else as it is and click Apply (this display)

## CONFIGURE CONTENT: LAB SITE

Configure field: Field: Website < 2 of 2 >

For: This page (override) ↓

Appears in: user:user, taxonomy\_term:principal\_investigator, node:lab. Also known as: Content: Lab Site, Taxonomy term: Lab Website, User: Website.

Create a label  
Enable to create a label for this field.

**Label**  
Website

Place a colon after the label

Exclude from display  
Enable to load this field as hidden. Often used to group fields, or to use as token in another field.

**Formatter**  
Title, as link (default) ↓

▶ STYLE SETTINGS

▶ NO RESULTS BEHAVIOR

Apply (this display) Cancel Remove

For the lab website, we're going to keep the label, because we want something that identifies what the link is for. Leave everything else as is and click Apply (this display)

## CONFIGURE CONTENT: CAMPUS AREA

Configure field: Content: Campus Area < 1 of 2 >

For: This page (override) ↓

Appears in: node:lab.

Create a label  
Enable to create a label for this field.

**Label**  
Campus Area

Place a colon after the label

Exclude from display  
Enable to load this field as hidden. Often used to group fields, or to use as token in another field.

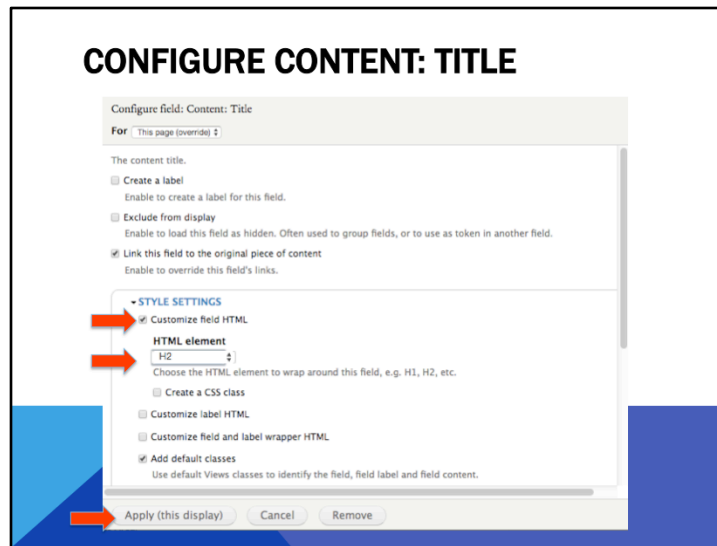
**Formatter**  
Link

▶ STYLE SETTINGS

▶ REWRITE RESULTS

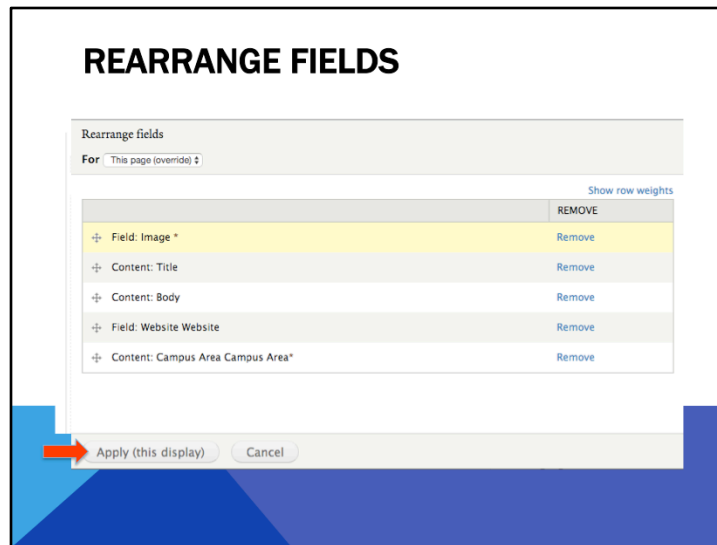
Apply (this display) Cancel Remove

1. Since we don't want Campus area to show up in the view, we're going to click Exclude from display. We still want to be able to filter by campus area though, so that's why we're including it.
2. Leave everything else as is and click Apply (this display).



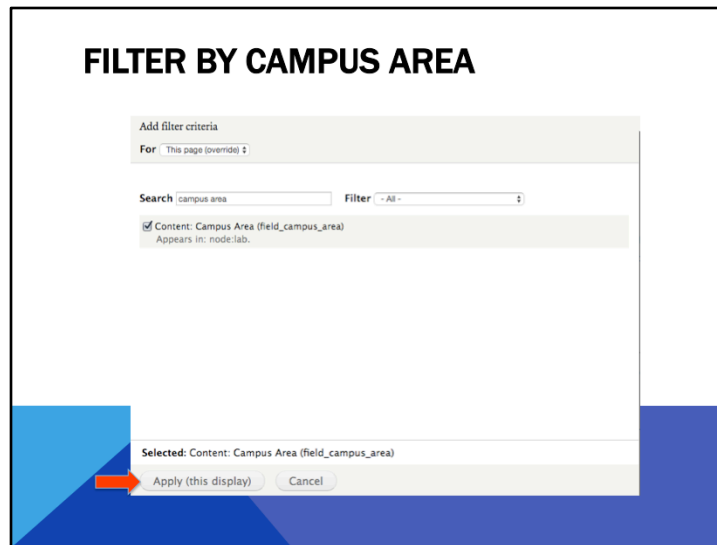
After you've added all the fields, edit the Title field.

1. Under Style settings, check the box next to customize field HTML, and change the field HTML element to H2 (2).  
This means Heading 2 – it will use the built-in font and size from the YaleSites template to style the title wherever it appears so you don't have to worry about setting the size, font, and color on every title.
3. Click Apply this display when you're done.



So here's our Fields. (read).

1. If you look at the bottom of the views window, you'll see a preview of our view. The problem is that the fields are not in the correct order- we want the image to be first, followed by the title and then Body and Site.
2. So, let's click the arrow next to Add, and select Rearrange. (3)
4. Here you can rearrange the fields by dragging and dropping the plus-sign arrows to their left of the fields to grab them.
5. We'll then Apply when we're done.



The next thing we're going to set up is filtering. We want to allow site visitors to choose to view only labs in West Campus, or at the med school.

1 So, click the Add button

2 Find Campus Area and check the box next to it, then make sure it's set to only this page.

3 Then click Apply (this display).

## FILTER BY CAMPUS AREA

Configure filter criterion: Content: Campus Area (field\_campus\_area)

For This page (override) :

Appears in: node:lab.

Expose this filter to visitors, to allow them to change it

**Filter type to expose**

Single filter

Grouped filters

Grouped filters allow a choice between predefined operator/value pairs.

Required

**Label**

Select Campus Area

**Description**

**Operator**

Is one of

Is all of

Is none of

**Select terms from vocabulary Campus Area**

- Central Campus
- Medical School
- Science Hill
- West Campus

Apply (this display) Cancel Remove

1. Choose Dropdown and then Apply (2)
3. Then select check the box to expose this filter to visitors. This...
4. Afterwards, change the Label to "Select Campus Area"
5. Lastly, click Apply.



## SORT BY LAB NAME

Add sort criteria

For: This page (override) ↓

Search: lab name      Filter: - All - ↓

Content: Lab Name (field\_lab\_name)  
Appears in: node:job\_posting.

Content: Lab Name (field\_lab\_name.format)  
Appears in: node:job\_posting.

---

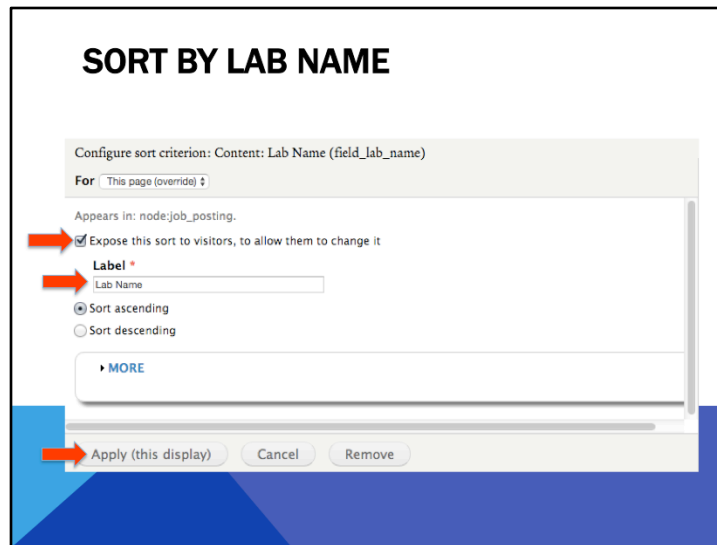
Selected: Content: Lab Name (field\_lab\_name)

Next we want to allow the ability for site visitors to sort the labs by name rather than by date the lab pages were entered in the site.

1 Click on the Add button next to Sort Criteria

2 Search for 'Lab Name', check the box next to it, make sure it will only affect this page, and select Apply (this display)



- 1 Check the box to expose this sort to visitors
- 2 And change the label to Lab Name
- 3 Lastly, Apply.

## VIEW THE EXPOSED FILTERS

Title ⚙️

Science Labs

Exposed Filters ⚙️

Select Campus Area Sort by Order

✓ - Any - Lab Name Desc Apply

Central Campus  
Medical School  
Science Hill  
West Campus

Now in our Page view preview, we can see the searching and filtering capabilities we just added.

- 1 Clicking the arrow next to the campus area will allow us to choose which area we want, and
- 2 Clicking the arrow under the Sort will allow us to choose which field we'd like to sort by- right now the only field available that is exposed is Lab Name.
- 3 The order switches between ascending and descending.

## CUSTOMIZE THE VIEW: OVERVIEW

Home > Administration > Structure > Views > Science Labs (Content)

### Science Labs (Content)

Modify the display(s) of your view below or add new displays.

Displays

Master Page Block + Add edit view name/description

Page details

Display name: Page view Page

TITLE

Title: Science Labs

FORMAT

Format: Unformatted list | Settings

Show: Fields | Settings

FIELDS Add

CONTENT: TITLE Add

FILTER CRITERIA Add

CONTENT: PUBLISHED (Yes)

Content: Type (= Lab)

SORT CRITERIA Add

Content: Post date (desc)

PAGE SETTINGS

Path: /science-labs

Menu: No menu

Access: Permission | View published content

PAGE HEADER Add

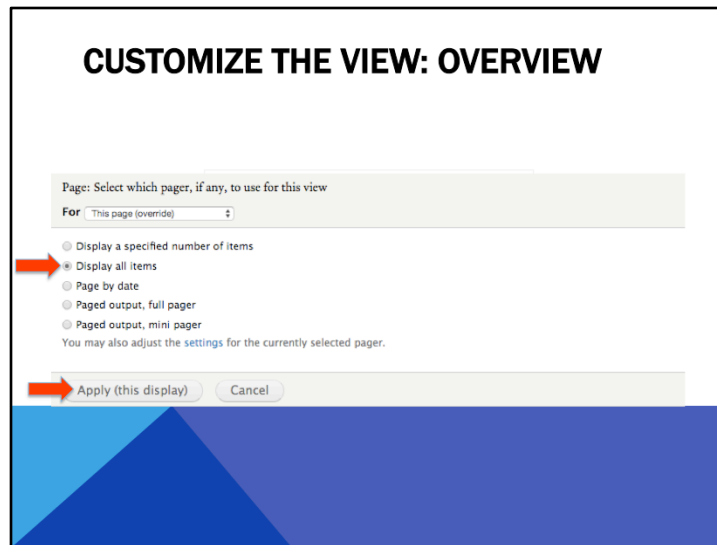
PAGE FOOTER Add

PAGER

Use pager: Full | Paged, 10 items

More link: No

Next we're going to look at the middle column of the view settings.



1. Here we can change the URL of this view page if we'd like
2. Or add the page to the menu if we'd like
3. At the bottom, we can select how many items we'd like to see on each page. Instead of using a pager, we are going to click on Full
4. and select Display all items (5), then Apply (6), making sure it's only for this display.

## CUSTOMIZE THE VIEW: OVERVIEW

Home > Administration > Structure > Views > Science Labs (Content)

### Science Labs (Content)

Modify the display(s) of your view below or add new displays.

Displays

Master Page Block + Add edit view name/description

Page details

Display name: Page view Page

TITLE  
Title: Science Labs

FORMAT  
Format: Unformatted list | Settings

Show: Fields | Settings

+ FIELDS Add

Content: Title Add

+ FILTER CRITERIA Add

Content: Published (Yes)

Content: Type (= Lab)

+ SORT CRITERIA Add

Content: Post date (desc)

PAGE SETTINGS

Path: /science-labs

Menu: No menu

Access: Permission | View published content

+ PAGE HEADER Add

+ PAGE FOOTER Add

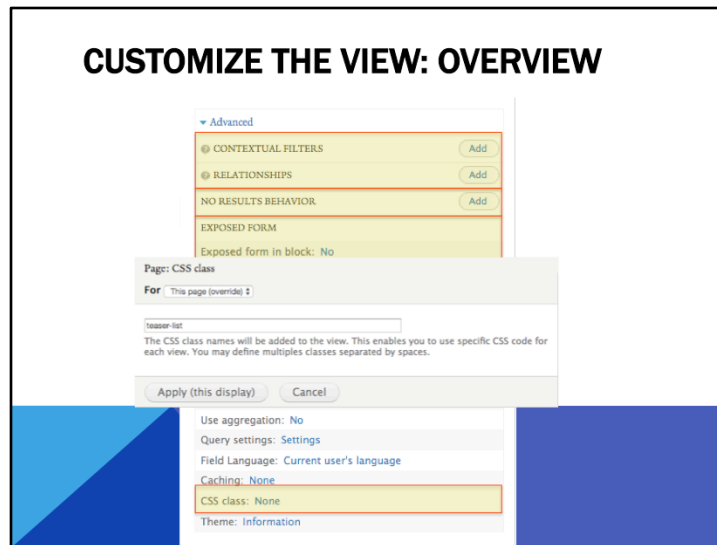
PAGER  
Use pager: Full | Paged, 10 items

More link: No

Advanced

Next we're going to look at the right most column of the view settings.

1. We'll click "Advanced" to open up these options



So here's the expanded right-hand column of the Lab view.

I'm going to do a quick overview of the most commonly used sections.

0. Up here is Contextual Filters and Relationships. These are definitely advanced concepts so I won't go over these today, but basically, contextual filters lets you create filters based on dynamic information, like the URL of the page you're on. Relationships lets you relate additional information to your view, like page author, that you can add as a field or then use to filter and sort.

1. No Results Behavior lets you set what happens when a user searches and they don't find anything based on their search terms, like a message that says "Sorry, no labs were found matching your criteria."

2. Exposed Forms- remember how we created those filters for showing us only certain labs based on location? In Exposed form in block, you can make this a separate block, and place it wherever you want. In Exposed form style you can choose different kinds of search forms, like checkboxes instead of a dropdown.

3. AJAX is a scripting language that makes the search happen automatically, instead of clicking Search.

4. CSS Class affects the style of the view. YaleSites has a built-in CSS class called teaser-list that makes the view look really good. Instead of just showing the image on top of the title on top of the description like we saw before, this CSS class shows the image in the left side and the title and description on the right. It also puts horizontal lines between each item.

## VIEW THE RESULTS- BEFORE CSS

### ScienceLabs



Howard Lab

Our lab is fascinated by the question of how small molecules like proteins, lipids and nucleotides self-assemble into cells and tissues that are thousands and millions of times large than molecular dimensions. How do the molecules know where they are, and whether the structures that they have made are the right size and shape? By using highly sensitive techniques to visualize and manipulate individual biological molecules, we are trying to understand the interaction rules that allow molecules to work together to form highly organized and dynamic cellular structures.

You won't be able to see the CSS class in the page preview. You need to go to the actual page to see the difference. This is what it looks like before applying CSS



## VIEW THE RESULTS- AFTER CSS

### ScienceLabs

Select Campus Area   Sort by   Order  
- Any -   Lab Name   Desc   Apply

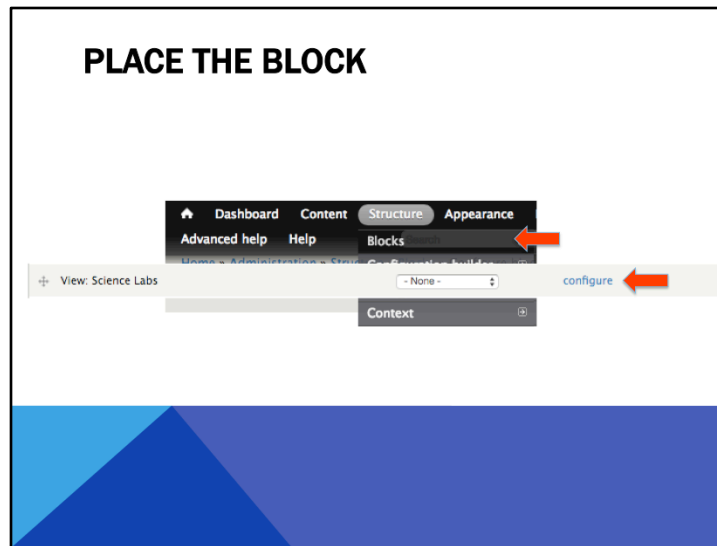


#### Howard Lab

Our lab is fascinated by the question of how small molecules like proteins, lipids and nucleotides self-assemble into cells and tissues that are thousands and millions of times large than molecular dimensions. How do the molecules know where they are, and whether the structures that they have made are the right size and shape? By using highly sensitive techniques to visualize and manipulate individual biological molecules, we are trying to understand the interaction rules that allow molecules to work together to form highly organized and dynamic cellular structures.

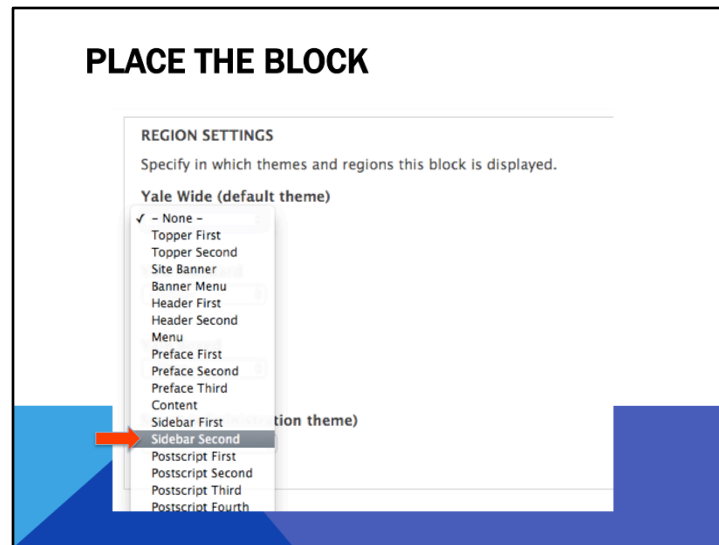
Website:  
[Howard Lab](#)

This is what it looks like after

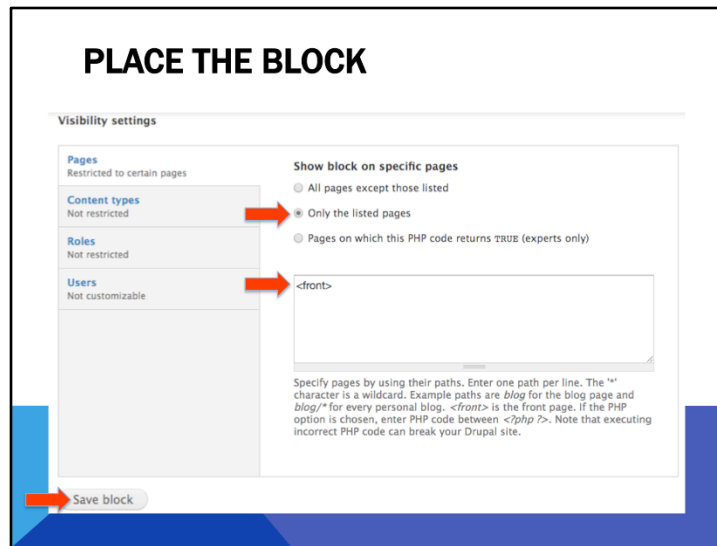


Go to:

1. Structure > Blocks and go to the bottom, in the disabled blocks section, to find your Science Labs view (2).
3. Click configure to go to the block settings

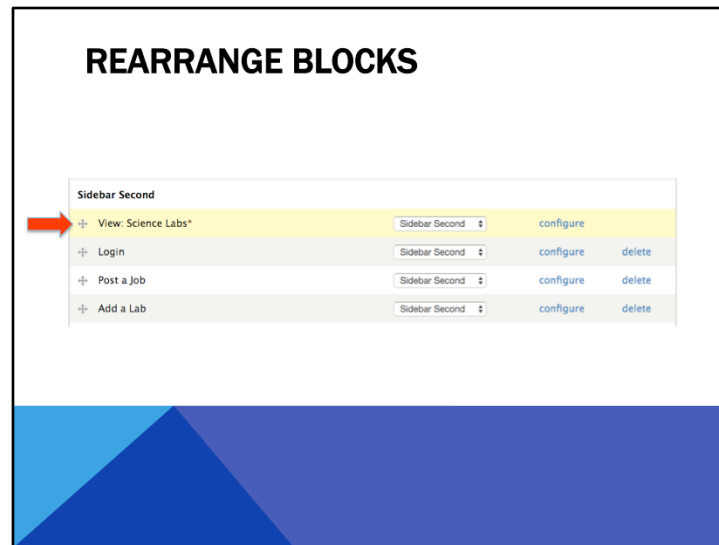


Scroll down to region settings, and select (1) Sidebar second to place your block in



That will place the block in the right-hand sidebar on every page. However, we only want it on the front page. So, we'll scroll down to Visibility settings at the bottom, select Only the listed pages (1) and enter <front> in the box (2).

3. Don't forget to save the block when you're done.



Next we're brought back to the Blocks configuration page.

Under sidebar second, you can drag and drop to rearrange the different blocks so that you can specify which order they should appear in. For example, I'm going to drag the Science Labs view to the top so that it appears on top (1). Click save at the bottom, and go to the home page to see the results.

**VOILA!**

Yale University

## Undergraduate Research at Yale

Home FAQs Principal Investigators Labs Resources Interviews About News Job Postings Help



**How do I find a lab?**  
What should I do to find a position at a research lab? 1 2 3

Finding out about undergraduate research lab opportunities at Yale can be difficult. This site seeks to explain the process and provide information about the research labs that welcome undergraduate researchers.

Peer-sourced information and experience

How to access the research world at Yale

Science Labs

- Howard Lab
- Flannery Laboratory
- Reinke Lab
- Loewi Lab
- Dieter Söll Laboratory

Log in with CAS

Your block shows up here

