

# Rethinking Responsive Building Techniques

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# Traditional way to support mobile 手機版傳統開發方式

Build a separate  
mobile website

製作手機版網頁



This is really hard! 這真的很難！

# Responsive Design

## 彈性網頁設計

- Single source of HTML  
單一原始HTML
- Responds to different viewport sizes  
根據瀏覽器大小調整內容



# Responsive Content Example

# Palantir.net



<http://www.palantir.net/experience>

1024 x 768 (tablet - landscape)



Services

Team

Work

Blog

Contact

# Increasing Knowledge and Appreciation of Our World

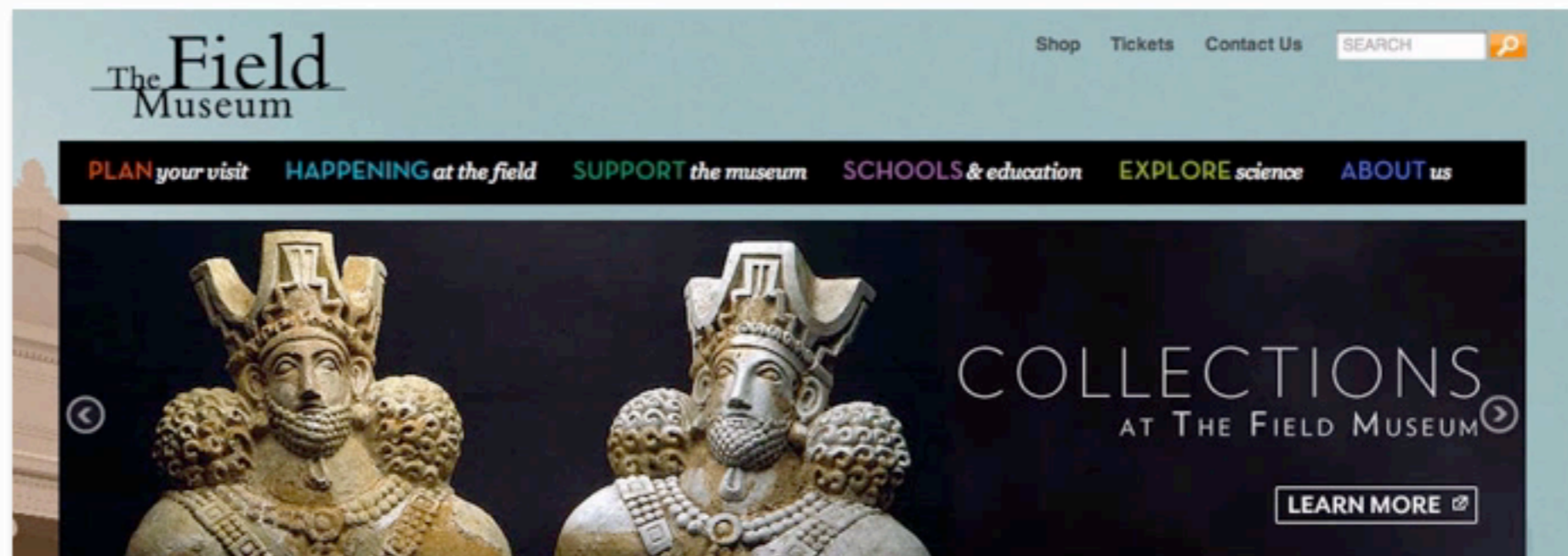
The Field Museum of Natural History | [fieldmuseum.org](http://fieldmuseum.org)

## HIGHLIGHTS

Streamlined workflow and opened up access to more content editors and contributors

Enabled the quick and easy creation of reusable microsites

Enabled collections



# The obvious method: region-based layouts



**Stark in  
Drupal 8**

“Multi-Device Layout Patterns”

<http://www.lukew.com/ff/entry.asp?1514>



Mobile First



Content First



Users First



# Drupal 7 provides an opportunity



# Drupal 7 provides an opportunity

Home » Administration » Structure » Content types » Article

LABEL	NAME	FIELD
⊕ Title	title	Node module element
⊕ Tags	field_tags	Term reference
⊕ Body	body	Long text and summary
⊕ Image	field_image	Image

Field-based responsive layouts means “responsive content”

Barnard students intern at Black Rock Forest Consortium

For The New York Times, Prof. José C. Moya discusses "Amerindian immigration from Latin America"

The New Yorker profiles Barnard commencement speaker Facebook COO Sheryl Sandberg



**EVENT**  
Activism and the Academy:

**NEWS**  
Barnard faculty and

**NEW STUDENT ORIENTATION PROGRAM**

**image field**

## Our Client

Barnard College is one of the nation's leading liberal arts colleges, dedicated to helping educate young women whose curiosity, drive, and exuberance set them apart. For over a century, women like Zora Neale Hurston, Margaret Mead, and Martha Stewart have helped change the world and the way we think about it.

**body text field**

Located in the cosmopolitan environment of New York City, Barnard offers the best in liberal arts education while simultaneously drawing upon the resources of one of the country's leading research institutions, Columbia University.

**"team" text field**

This unique partnership enables Barnard to prepare its graduates to flourish in an increasingly interconnected world.

**HIGHLIGHTS**

Enterprise-wide platform that supports dozens of sites

Workbench provides workflow options for distributed content contributors and editors

Content about events, news, and courses

**"highlights" text field**

**THE TEAM**

Senior Engineer and Technical Lead  
[Robin Barre](#)

Engineers  
[Arthur Foelsche](#)  
[Bec White](#)

**"team" text field**

Each field becomes a grid item

# Building techniques



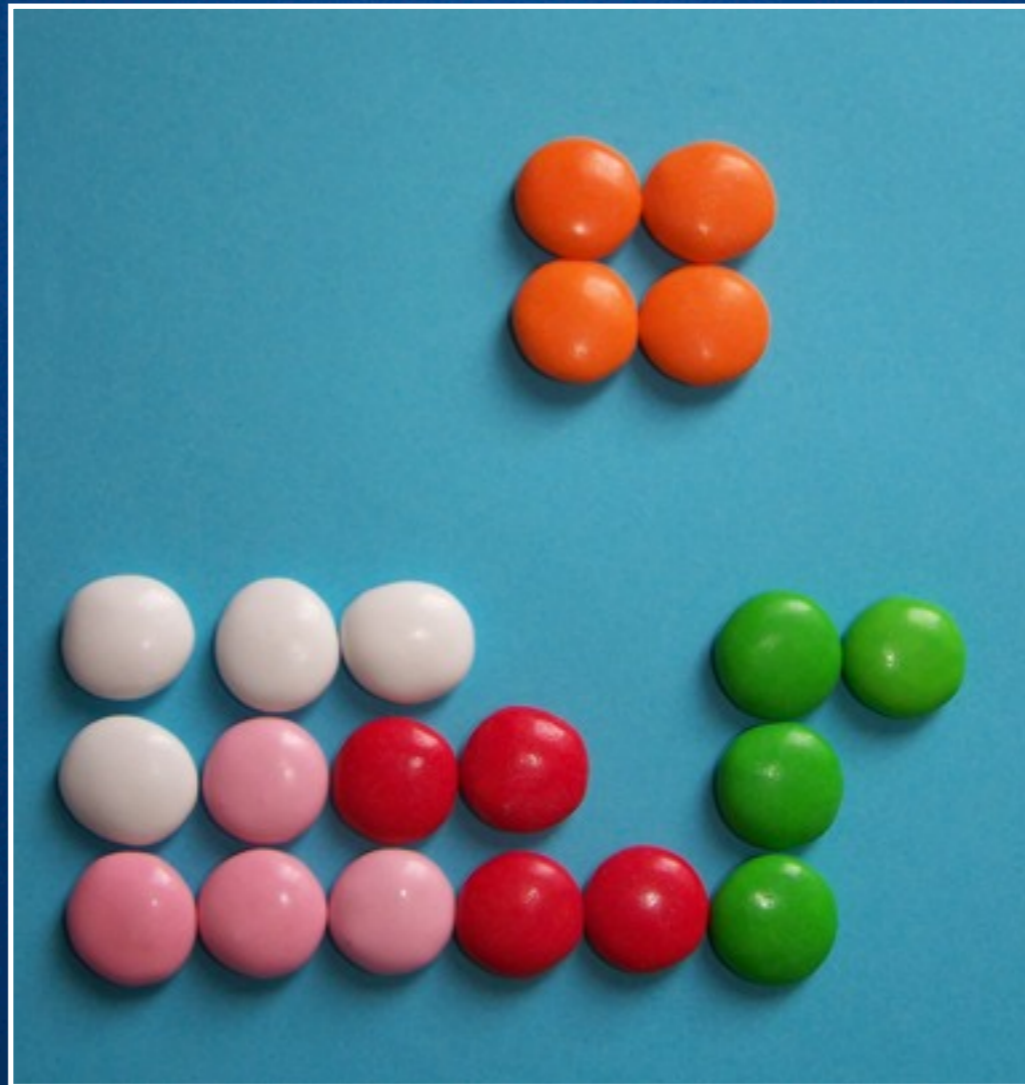
There's a difference between having the right tools and knowing how to use them.

# Our Tools: CSS

```
.grid-item {  
  float: left;  
  width: 25%;  
}
```

```
.grid-item-2 {  
  clear: left;  
  float: left;  
  width: 50%;  
}
```

# Creating a layout is like... a game of Tetris



# Creating a layout is like... a game of Tetris

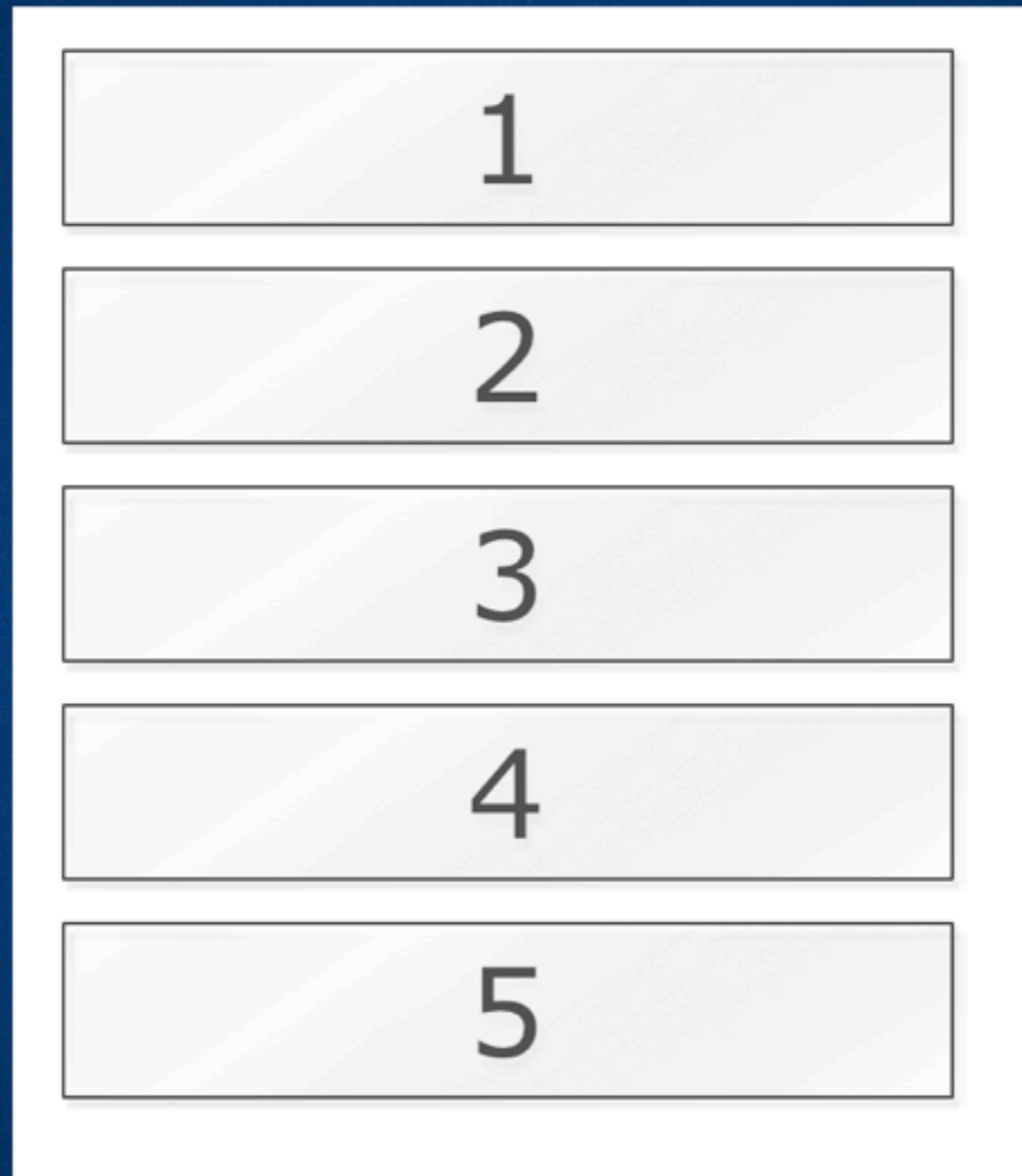


...but upside-down.



# Content first





Use your content's natural semantic ordering.  
(All other rules depend on it.)



# The Adjacent Sibling Rule



Rows are composed of elements that are next to each other in the HTML source.

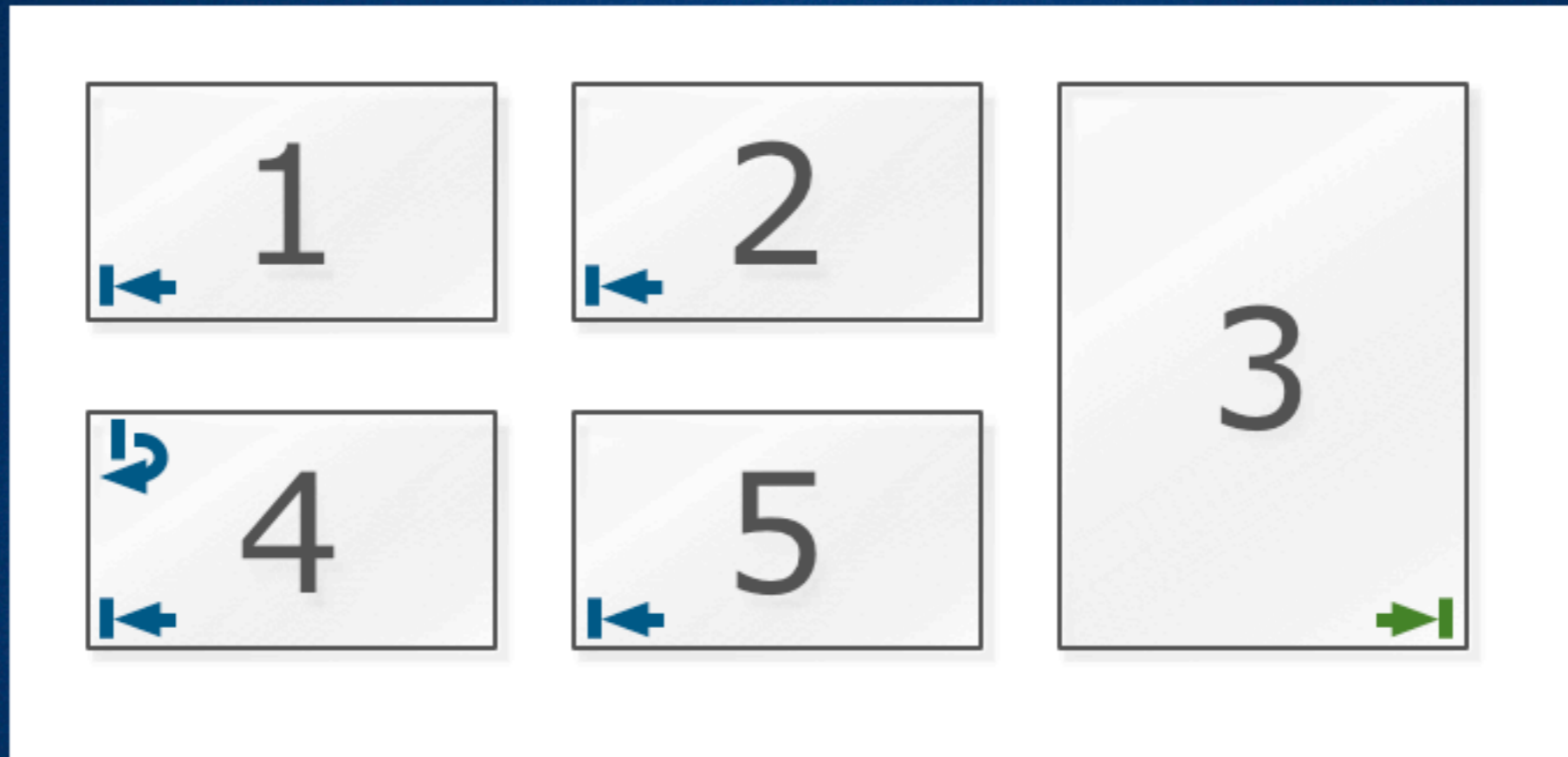
(But they can be re-arranged within the row.)

(To start a new row, add a clear to the first sibling.)

← float: left;    ↶ clear: left;



# The Opposing Float



An element can span multiple rows if it floats in the opposite direction of its siblings.

← float: left;    ↶ clear: left;    → float: right;



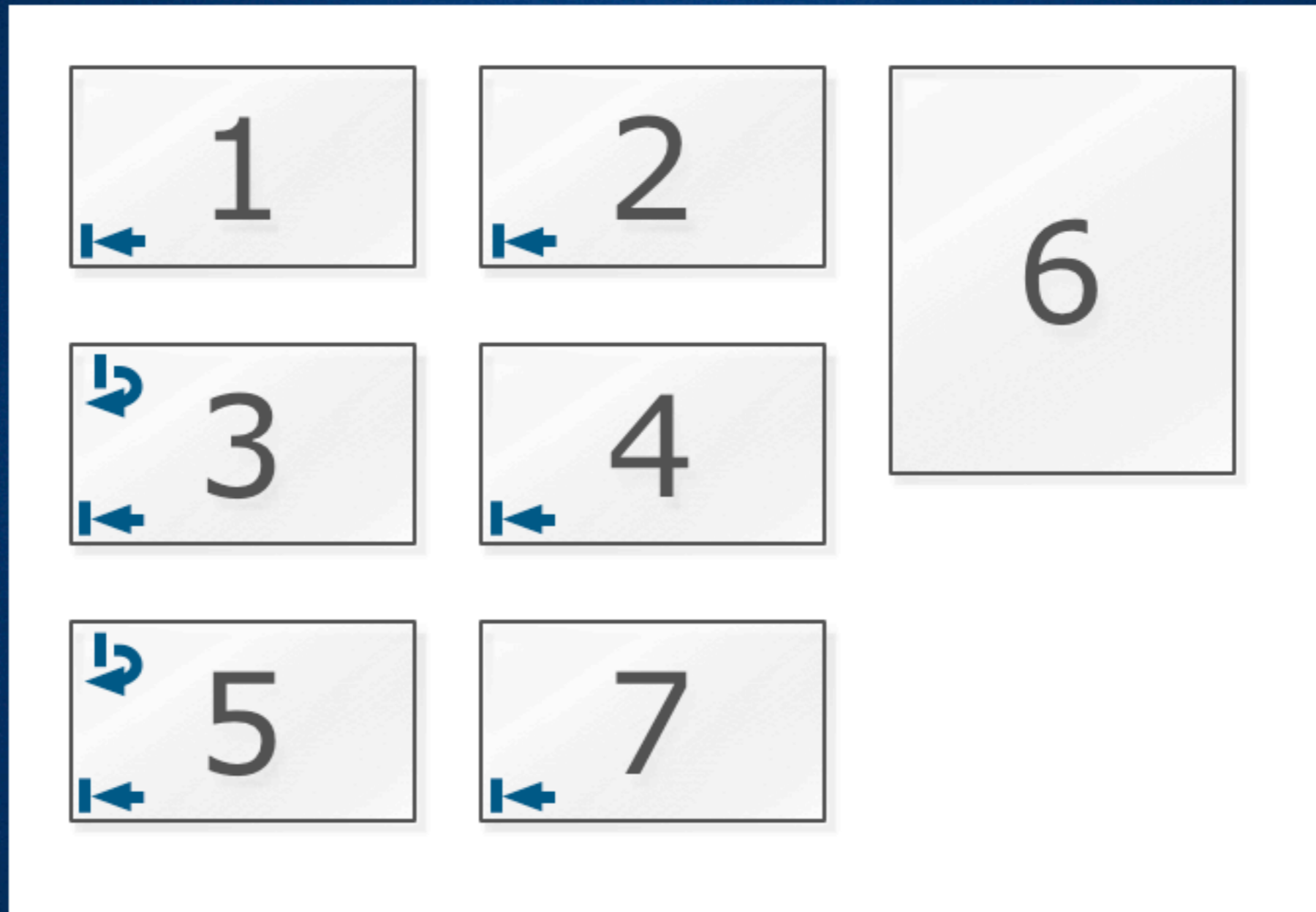
More complicated layouts are possible

← float: left; ↶ clear: left; → float: right;



# The Absolute Exception

( to the Adjacent Sibling rule )



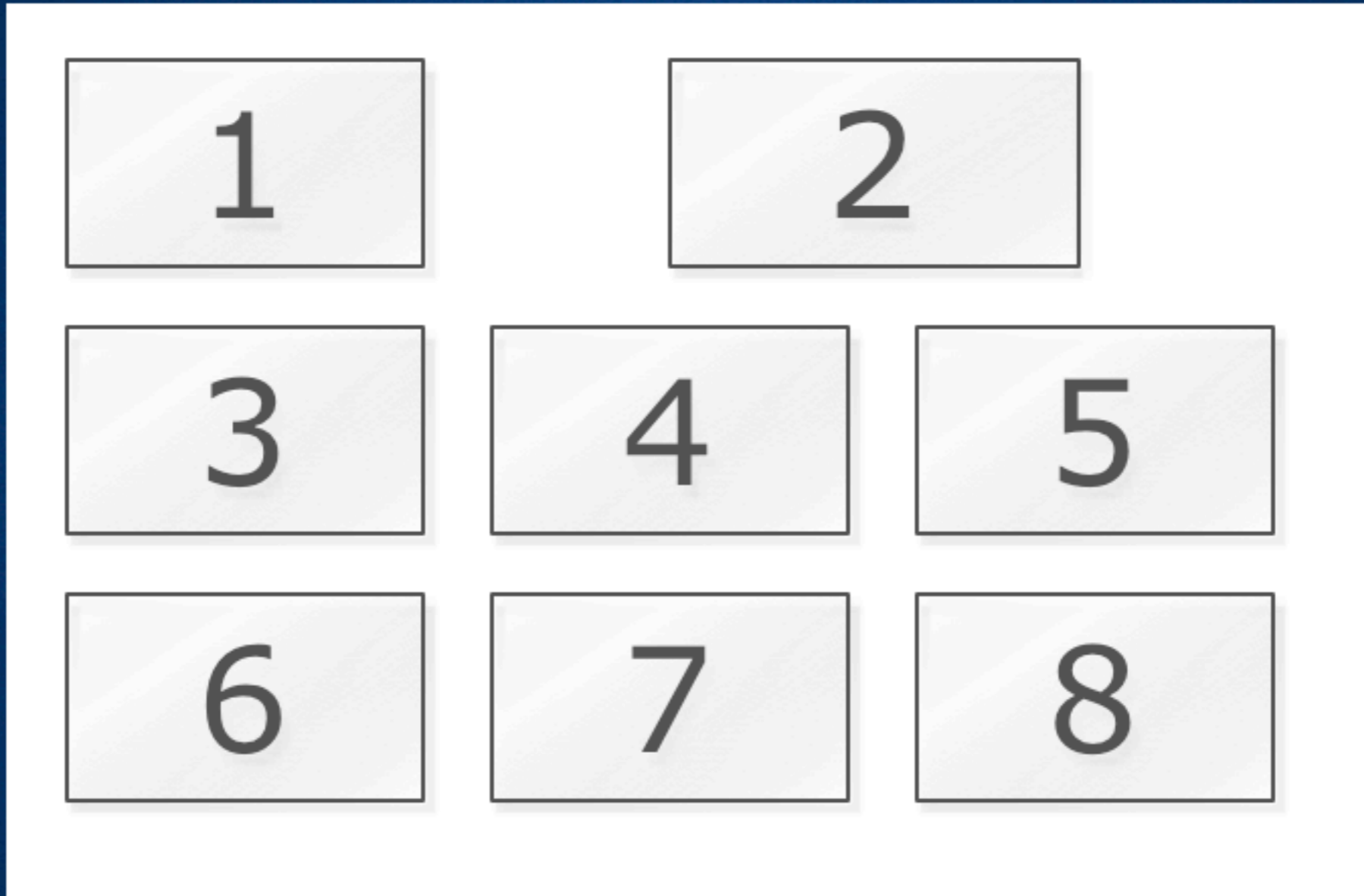
If you leave space below and can be sure no other content will overlap, you can apply `position: absolute;`



One more thing...



# The Violator



Violate the grid judiciously.

# More Tools: Sass to the rescue!



<http://zengrids.com/>

**Thank You!**