

# Design for Developers

Typography



# Introduction

# Introduction



ty·pog·ra·phy

/tī'pägrəfē/

*noun*

the style and appearance of printed matter.

- the art or procedure of arranging type or processing data and printing from it.

# Introduction

Content is the most important thing on the web. Without content, there would be no reason to visit websites. The bulk of content online is text so it is important we get it right. However, typography online is often done poorly.

With good typography you can make even the simplest design look great and beyond that, well-done typography reinforces the meaning of the content.

Today we are going to talk broadly about the anatomy of a font, types of fonts, how to pair fonts, hierarchy, and accessibility.

# Introduction

There is no one size fits all solution when it comes to typography and there isn't one correct answer for your typographic needs.

“Your ability to produce good typography depends on how well you understand the goals of your text, not on taste or visual training. Corollary: if you misunderstand the goals of your text, good typography becomes purely a matter of luck.”

Source: <https://practicaltypography.com/what-is-good-typography.html>

# Typeface vs Font

*“The distinction between font and typeface is that a font designates a specific member of a type family such as roman, boldface, or italic type, while typeface designates a consistent visual appearance or style which can be a "family" or related set of fonts.”*

Source: [Wikipedia](#)

“The difference between a font and a typeface is the same as that between songs and an album. The former makes up the latter. ”

Source: [What's The Difference Between A Font And A Typeface?](#)

# Introduction

So, what is a font, anyways?

- Static data file (.TTF, .OTF, etc.), similar to a .PDF or .MP3
- Contains information that defines the shape of the letters, spacing, etc.
- One font file for each style in a family, i.e. italic, bold, etc.
- All text you see on a screen is rendered with a font
- Fonts are software and professional fonts are licensed

Source: <https://practicaltypography.com/font-basics.html>

# Typeface vs Font

There is a difference between typeface and font but unless you're an expert, the term 'font' is usually used to refer to both fonts and typefaces.

Which probably annoys typography experts a lot.

We will be using the term font to refer to both font and typeface to simplify things. If you want to do a deep-dive into web typography we highly recommend either, <https://betterwebtype.com/> or <https://practicaltypography.com/> or both!



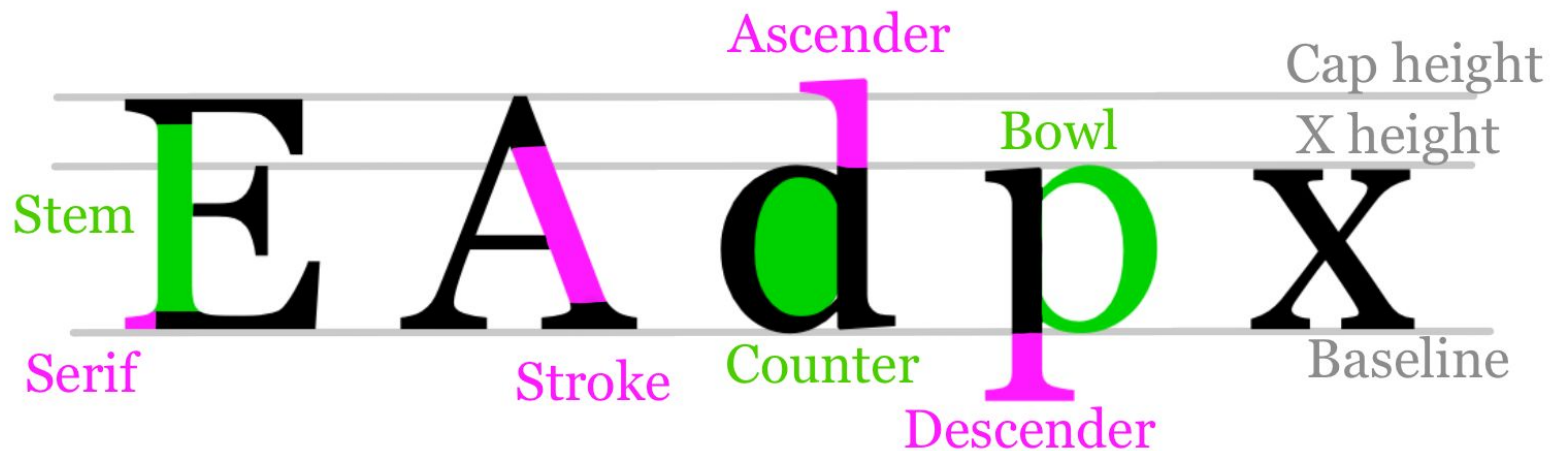
# Anatomy of a Font

# Anatomy of a Font

Fonts are made up of letters which are named ay, or bee, or cee etc. Each one of those letters is comprised of multiple strokes or lines and each one of those also has a name!

We won't be going over every single bit of font anatomy today but we will cover the major points.

# Anatomy of a Font



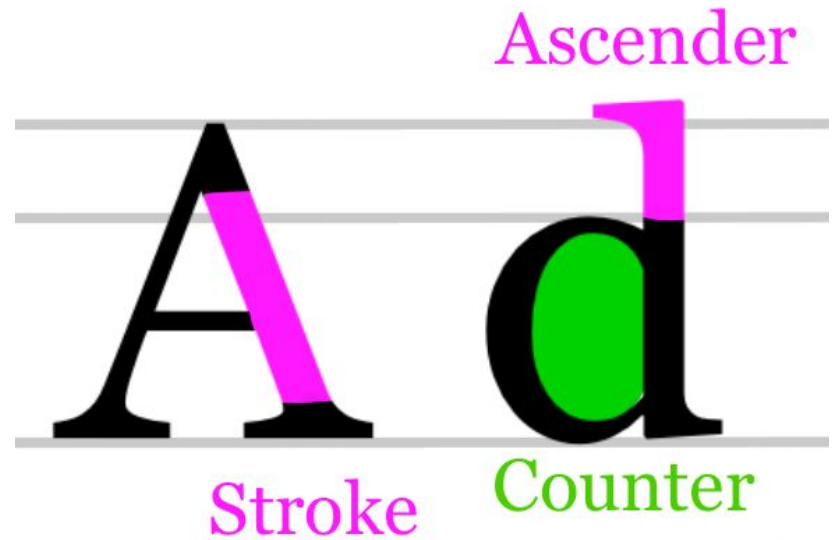
# Anatomy of a Font

- **Stem** - The main vertical stroke in upright characters (And the first diagonal in a capital A or V is also called a stem)
- **Serif** - A short line added to the beginning and end of strokes and stems



# Anatomy of a Font

- **Stroke** - The main vertical *diagonal* line in a letter
- **Ascender** - The vertical part of a stem that extends above the x-height
- **Counter** - The space enclosed by a bowl



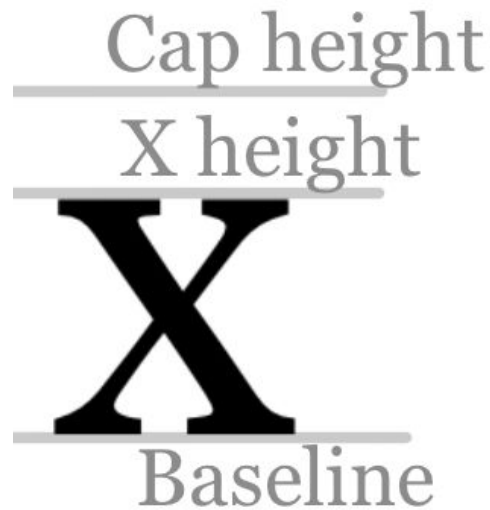
# Anatomy of a Font

- **Descender** - The vertical part of a stem that extends below the baseline
- **Bowl** - A curved line that creates an enclosed space (think d not c)



# Anatomy of a Font

- **Cap Height** - The height of capital letters (most accurately taken from the E)
- **X-height** - The height of lowercase letters. Named x-height because the measurements is taken from lowercase x
- **Baseline** - The line the letters sit on



# Anatomy of a Font

There are many, *many* more anatomical parts of fonts but these few will get us started.

If you'd like to deep-dive into type anatomy check out:

<https://betterwebtype.com/>



# Additional Typography Terms

# Typography Terms

**Line spacing** - This is the vertical distance between lines of text. In CSS it is controlled by the line-height property which adds space above and below the text. It is the exact distance between two adjacent baselines. It is also known as leading.

130% to 150% is considered ideal for readability. That's 1.3-1.5 as a line-height property value.

The smaller the text, the more line spacing is needed.

**Default line-height.** Integer consectetur, felis nec dapibus fringilla, ex massa luctus urna, sit amet rhoncus risus tellus in elit. In consectetur, dui imperdiet mollis cursus, diam dui iaculis elit, ut scelerisque dolor nisl quis ligula. In pulvinar, justo quis tincidunt varius, velit ipsum maximus mi, et lobortis tortor metus quis nulla.

**Line-height 140%.** Sed venenatis posuere consectetur. Morbi placerat nisi ac auctor ullamcorper. Phasellus sit amet elementum magna, eget sollicitudin est. Suspendisse malesuada ex id felis dapibus fringilla et rhoncus ligula. Aliquam sollicitudin, quam a cursus ornare, tellus purus consectetur tellus, a tristique mauris ex at ligula. Vivamus sit amet nulla purus.

**Line-height 180%.** Nullam laoreet, lacus non imperdiet mattis, sapien orci laoreet nibh, at semper leo sapien congue tellus. In hendrerit sit amet nisi sed molestie. Maecenas vel luctus nisl, ac viverra eros. Sed non mi tempus, hendrerit libero nec, feugiat lacus. Vivamus quam ipsum, sagittis sit amet posuere a, porttitor at nunc. Aenean ullamcorper augue vitae neque tincidunt vulputate. Cras sodales luctus commodo.

# Typography Terms

**Letter spacing** - The space between the characters in a line of text. It is controlled by the letter-spacing property in CSS. Letter spacing affects readability.

Add letter spacing when you make text uppercase or quite small but don't add too much.

Don't adjust letter spacing for general body text.

Never reduce letter spacing.

THIS TEXT HAS NO LETTER SPACING

THIS TEXT HAS SOME LETTER SPACING

THIS TEXT HAS TOO MUCH LETTER SPACING

This text has no letter spacing

This text has some letter spacing

This text has too much letter spacing

Source: <https://www.kevinpowell.co/article/letter-spacing-dos-and-donts/>

# Typography Terms

**Line Length** is the width of a line of text.

45 - 75 characters, including spacing and punctuation, is a good length for your text.

If your line length is too wide it is hard to focus on the text. If it is too narrow, the eye has to travel back and forth too often and it breaks the reading rhythm.

Here's a good tool to use to test out your line lengths:

[https://www.gillmeister-software.com/online-tools/text/add-line-breaks\\_change-line-length.aspx](https://www.gillmeister-software.com/online-tools/text/add-line-breaks_change-line-length.aspx)

# Types of Fonts

# Types of Fonts

**Serif** fonts have little tails, or serifs, on the letters. Serif fonts are good for professional designs and lend an old-fashioned, sophisticated feel to a website. It is said serif fonts are easier to read in print than on the screen.

These fonts are suitable for anything: headers, body text, small to large sizes, and it doesn't matter the length of the copy. The only thing that should be avoided are very small sizes where the serifs can make the text illegible.

Quick red fox

# Types of Fonts

**Sans Serif** means 'without serif' in French and sans serif fonts lack the little strokes at the end of letters that serif fonts have. Sans Serif fonts are regarded as clean, modern, simple and efficient. It is said sans serif fonts are easier to read on screens than serif fonts are.

Like serif fonts, sans serif fonts can be used for anything on your web page from headings to body text and they look great even at very small sizes.

Quick red fox

# Types of Fonts

**Script** fonts look handwritten. They bring elegance and authenticity to a design.

Script fonts are not meant to be very readable. They should not be used for body copy aside from short quotes. They work best as headers or in a logo.

*Quick red fox*



# Types of Fonts

**Decorative/display** fonts are highly unique fonts that can look like, well, nearly anything! These fonts are also not designed for long-form reading and are really meant to be used for style. Use these fonts as headings and never make them too small. They are meant to be read at a larger size.

Quick xed fox

# Types of Fonts

**Monospaced** fonts have the same spacing for each character regardless of what the character is. In a variable-spaced font, for instance, X tends to be quite wide but i will be less wide. Monospaced fonts resemble characters made with a typewriter and early computers displays. Modern code editors still use monospaced fonts because they help us find anomalies in repetitive code, allow for easier vertical selection, and create a consistent 'shape' to code, but they are not great for long form reading.

Quick red fox

# Hierarchy

# Hierarchy

Hierarchy is used to guide the reader's eye to whatever they are looking for and help them navigate the content. Hierarchy shows us where to begin and where to go next by using different levels of emphasis.

The Days Gone Past Me In a Blink  
By Herbert Mellon-Westerfield  
A tired old web developer reflects upon his  
life and career. Coding has been very  
rewarding for him but did he miss out on  
some of the cool things he could have done?  
Like climbing Mt. Everest?

**The Days Gone Past Me In a Blink**  
*By Herbert Mellon-Westerfield*

A tired old web developer reflects upon his  
life and career. Coding has been very  
rewarding for him but did he miss out on  
some of the cool things he could have done?  
Like climbing Mt. Everest?

Your goal is to make your text as comfortable to read as possible.

# Hierarchy

There are a few basic ways to help establish a typographic hierarchy:

- Size
- Weight
- Color
- Position
- Type Contrast

# Hierarchy

Size is what most people think of when they think of the different heading tags H1 to H6. Usually, H1 is the biggest size because it is the most important and H6 is the smallest because it is the least important.

If you've ever written in a Google Doc using the default theme this is certainly the case!

**This is a Heading 1**

**Hey, I'm Heading 2**

**Lookit me, I'm Heading 3**

**Could it be? Yes, Heading 4**

**I'm alive! I'm Heading 5**

***Last but not least, Heading 6***

# Hierarchy

Let's examine some real life examples of type hierarchy out in the wild. We obtained these examples by using Dev Tools in Chrome and editing the HTML to output the six levels of heading plus a paragraph of text.

You can do this on any website but not all websites have styled their headers the same and many use custom classes so it's more difficult to pick out their hierarchy.

67px

# This is heading 1

Montserrat

53px

## This is heading 2

Montserrat

42px

### This is heading 3

Montserrat

33px

#### This is heading 4

Montserrat

26px

**THIS IS HEADING 5**

Source Sans Pro

26px

**THIS IS HEADING 6**

Source Sans Pro

22px

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Source Sans Pro



64px **This is heading 1** Gilroy

48px **This is heading 2** Gilroy

40px **This is heading 3** Gilroy

32px **This is heading 4** Gilroy

20px **This is heading 5** Acumin Pro

16px **This is heading 6** Acumin Pro

20px Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. Acumin Pro

22px **This is heading 1**

22px **This is heading 2**

Graphik - For everything

18px **This is heading 3**

18px **This is heading 4**

18px **This is heading 5**

18px **THIS IS HEADING 6**

16px  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec luctus ligula nec nisi rhoncus sollicitudin. Aliquam maximus orci sit amet fermentum laoreet. Praesent nec lacinia massa. Fusce mollis cursus pellentesque. Nunc quis sem vitae dui luctus tempus. Cras suscipit, ipsum cursus tristique finibus, ligula nisi fringilla ante, ut laoreet metus eros vel diam. Vivamus nec cursus turpis, in ornare massa. Maecenas aliquet nunc vel diam bibendum congue. Etiam dignissim neque eu tellus venenatis, sit amet gravida nisi fringilla. Integer eu ullamcorper dui. Praesent faucibus in enim vitae vestibulum. Proin maximus ante id mauris posuere euismod.

29px This is heading 1

21px **This is heading 2**

Gotham - For everything

18px This is heading 3

13px This is heading 4

14px This is heading 5

14px This is heading 6

13px

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec luctus ligula nec nisi rhoncus sollicitudin. Aliquam maximus orci sit amet fermentum laoreet. Praesent nec lacinia massa. Fusce mollis cursus pellentesque. Nunc quis sem vitae dui luctus tempus. Cras suscipit, ipsum cursus tristique finibus, ligula nisi fringilla ante, ut laoreet metus eros vel diam. Vivamus nec cursus turpis, in ornare massa. Maecenas aliquet nunc vel diam bibendum congue. Etiam dignissim neque eu tellus venenatis, sit amet gravida nisi fringilla. Integer eu ullamcorper dui. Praesent faucibus in enim vitae vestibulum. Proin maximus ante id mauris posuere euismod.

# Hierarchy

Why do you often see 16px as a base size? One reason might be because of math!

This is a great article about [The Mathematical Advantage of a 16px Base Font Size](#)

1. Math is a lot easier with a 16px base font size
2. Anything less than 16px is really small these days

Of course, 16px is just a guideline. There are some amazing designs that have larger and smaller base font sizes. It all depends on your content and font choices.

# Hierarchy

There is a tool to help you pick out the size of the headings! It's called a scale, type scale, or modular scale.

<https://type-scale.com/>

# Choosing Fonts

# Choosing Fonts

When choosing a font, start with the body text. There will probably be more body text than anything on your site and it also is a good starting point for picking a base font size.

As we read earlier, 16px is a good starting place for a body font size but you are free to make it bigger or smaller if you like.

Remember also, it isn't a great idea to use a decorative font for body text; pick a serif or sans serif font.

# Choosing Fonts

Think about the message of your website. Are you making a blog about old woodworking tools? A serif font would be an appropriate choice. Making a website about a fairy-tale video game, maybe a script or decorative font would be in order for the headings. Body copy should always be a serif or sans serif font depending on the feel you are going for.

Some people say you should avoid web-safe fonts but it could make a difference performance-wise if you stick to a web-safe font.

Just make sure you use the font appropriately and pair it with something that works.



# Choosing fonts

If you see font combinations on websites you like, inspect their site and find out what fonts they used! There's nothing wrong with doing the same font pairing.

Here are some sites you can go to in order to look at/choose fonts:

<https://fonts.google.com>

<https://fonts.com>

<https://fonts.adobe.com/>

# Choosing fonts

Contrasting your font weights, in addition to size, helps to build your hierarchy. Both of these use Roboto as the font for heading and body but one has a weight of 900 which makes it really stand out.

## This is a heading 1

Integer consectetur, felis nec dapibus fringilla, ex massa luctus t  
risus tellus in elit. In consectetur, dui imperdiet mollis cursus, dia  
scelerisque dolor nisl quis ligula. In pulvinar, justo quis tincidunt  
maximus mi, et lobortis tortor metus quis nulla.

## **This is a heading 1**

Integer consectetur, felis nec dapibus fringilla, ex massa luctus t  
risus tellus in elit. In consectetur, dui imperdiet mollis cursus, dia  
scelerisque dolor nisl quis ligula. In pulvinar, justo quis tincidunt  
maximus mi, et lobortis tortor metus quis nulla.

# Choosing fonts

## Font Combinations

You only need one or two fonts for your page. Typically, it's one font for the body copy and one font for headings.

One of the most popular way to pair up fonts is to pair up a serif with a sans serif font. It's hard to get this sort of combination wrong. To make the pairing more harmonious, try to pick fonts with similar x-heights.

Try to avoid picking two fonts with the same classification, like slab serif fonts. Instead, pair a slab serif font with a different style of font like light or regular.

#### Base Size

16 px / 1em

#### Scale

1.250 – Major Third

#### Google Fonts

#### Weight

Roboto Slab

400

#### Preview Text

A Visual Type Scale

 Reset All |  Save for Later

#### Body Font

Roboto

#### Body Weight

300

#### Line Height

1.5

#### Background

white

#### Font Color

#000000

# A Visual Type Scale

What looked like a small patch of purple grass, above five feet square, was moving across the sand in their direction.

When it came near enough he perceived that it was not grass; there were no blades, but only purple roots. The roots were revolving, for each small plant in the whole patch, like the spokes of a rimless wheel.

<https://type-scale.com/>

# Choosing Fonts

1. Pick your body text font based on the sort of content you'll be featuring and the feel you want your site to have.
2. Go looking for a second font to pair. Starts with the same as your body copy and see if that suits.
3. Evaluate your picks. Try the fonts out on your local machine with a simple HTML page to see how the text reads.
4. Choose or discard your combination. If your font picks just aren't working out for you, try again!

# Choosing Fonts

If you find the whole process of choosing fonts tedious that's because it can be! To take some of the tedium out of the search, why not try using a font pairing tool to help you out?

<https://fontpair.co/>

<https://fontjoy.com/>

# Assignment

# Notes

<https://visme.co/blog/type-anatomy/>

<https://practicaltypography.com/index.html>

<https://betterwebtype.com/>

<https://betterwebtype.com/font-memory-game/>

<https://www.kevinpowell.co/article/letter-spacing-dos-and-donts/>