

LET'S FIX THE WEB'S TEXT SIZE

B B C



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CSS Fonts Module Level 5

Editor's Draft, 9 January 2026

▼ More details about this document

This version:

<https://drafts.csswg.org/css-fonts-5/>

Latest published version:

<https://www.w3.org/TR/css-fonts-5/>

Previous Versions:

<https://www.w3.org/TR/2021/WD-css-fonts-5-20211221/>

Feedback:

[CSSWG Issues Repository](#)

[Inline In Spec](#)

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Suggest an Edit for this Spec:

[GitHub Editor](#)

Delta Spec:

yes

Test Suite:

<https://wpt.fyi/results/css/css-fonts/>



Chrome 145



Firefox 147



Safari 26



Edge 144



**The *Web Content Accessibility Guidelines 2.2*
have these success criteria:**

1.4.4 Resize Text

1.4.10 Reflow

The best practices that web developers should follow to support text resizing?

Design your website 'mobile first' and follow **responsive web design** practices

Size everything in **font relative units like em and rem**

Use **rem or em units in media queries**

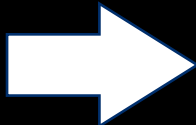
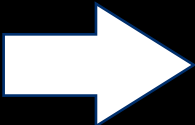
```
.sidebar {  
  display: grid;  
  gap: 1rem;  
  
  @media (min-width: 56.25rem) {  
    grid-template-columns: 1fr 18.75rem;  
  }  
}  
  
.headline {  
  font-size: 2.5rem;  
  
  @media (min-width: 37.5rem) {  
    font-size: 3rem;  
  }  
}
```



Incoming complaint!



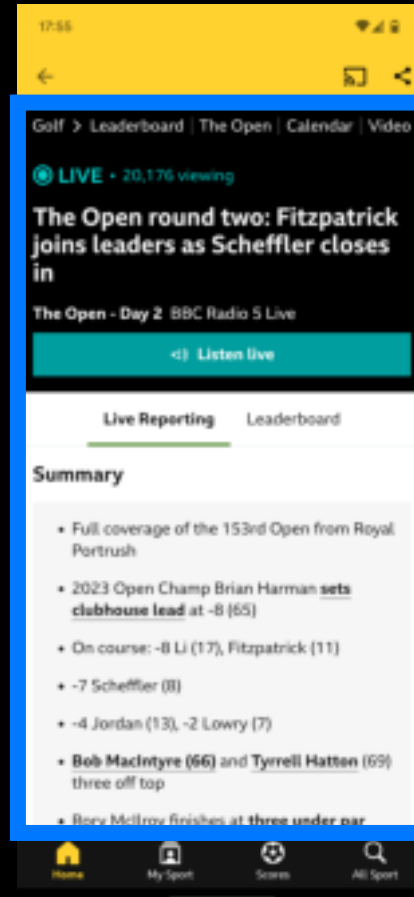
Increasing text size



What's the problem?



What's the problem?



Web View

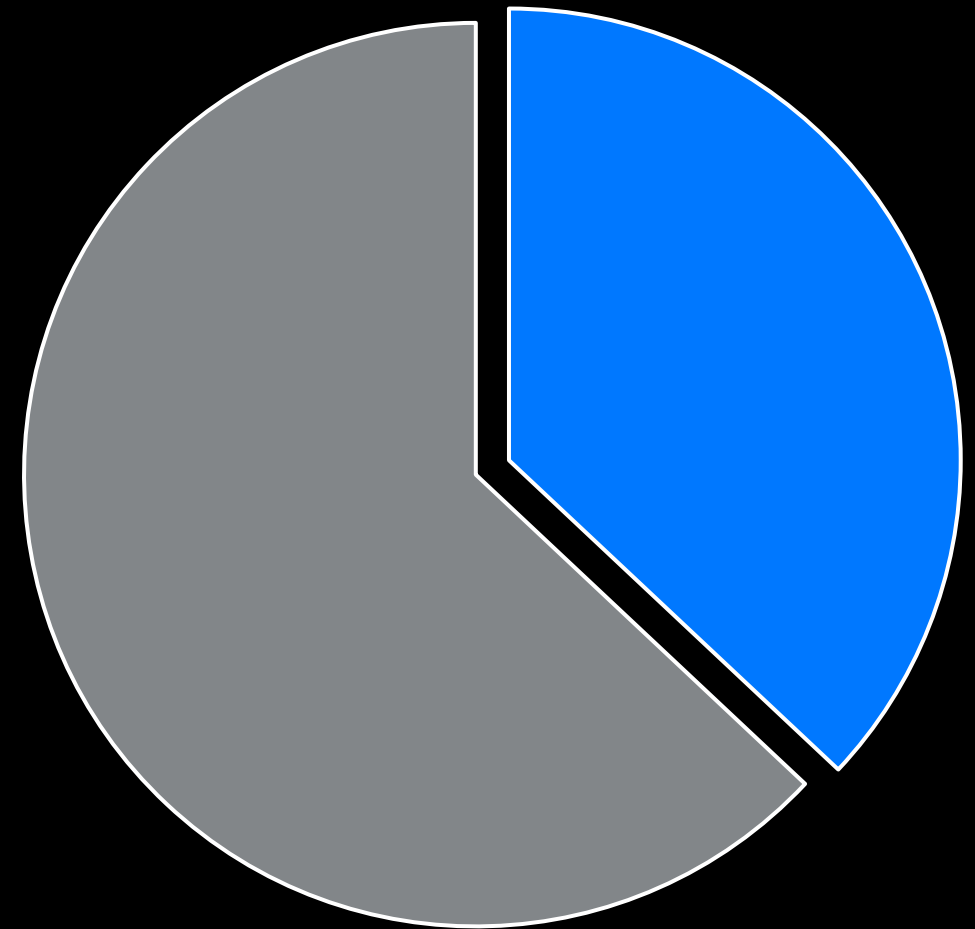
It's bad because...

About **37%** of users change their text scale settings on Android and iOS

Source: <https://appt.org/en/stats/font-size>



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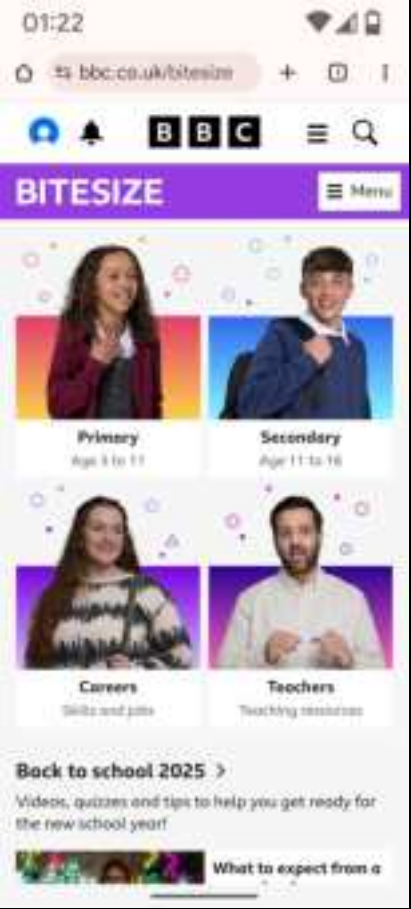
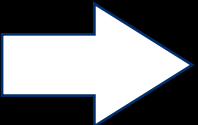
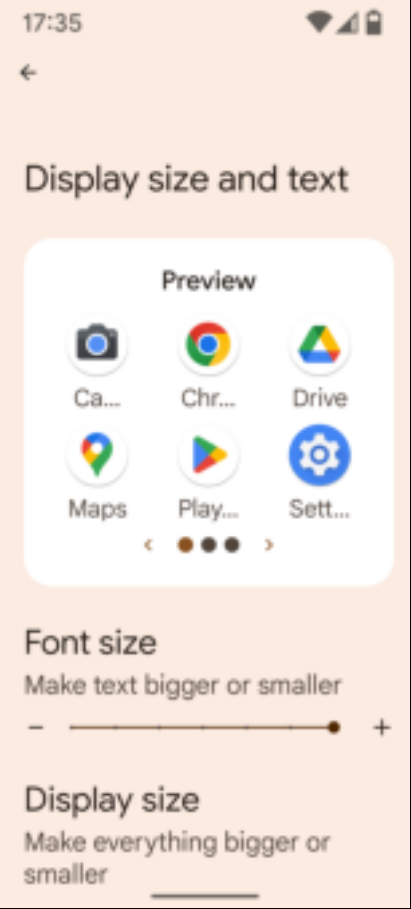
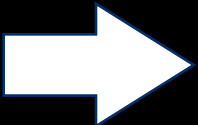
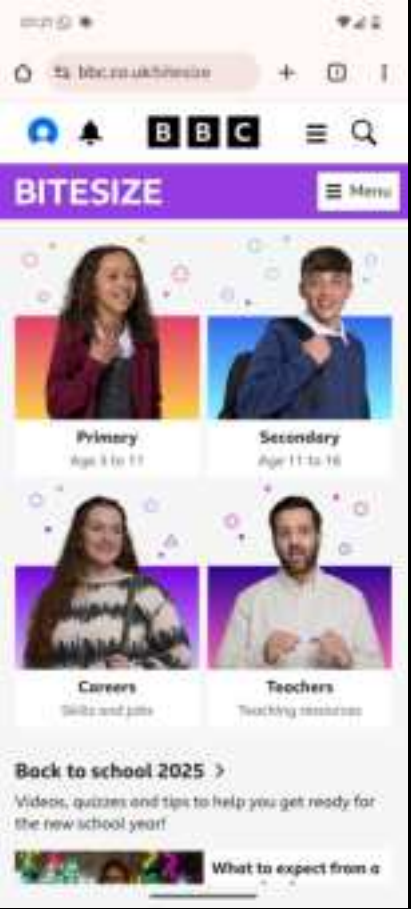
- Change text scale
- Use default text scale

**“Why doesn’t it work?
We followed all the best practices!”**

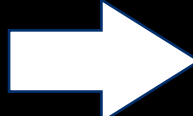
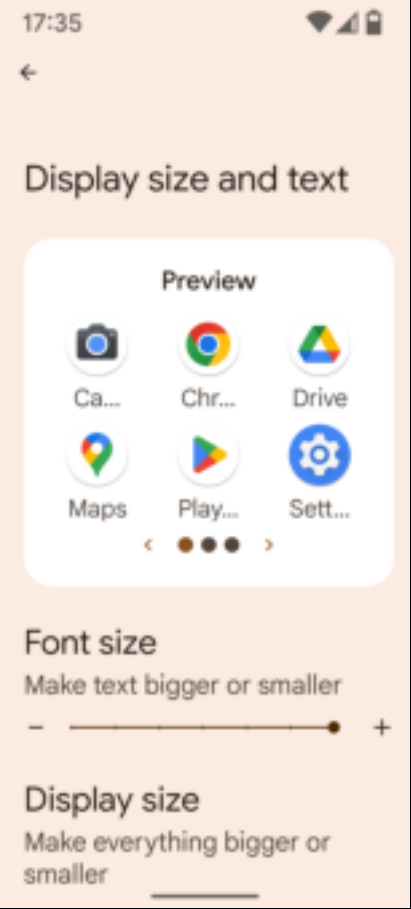
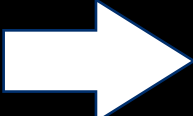
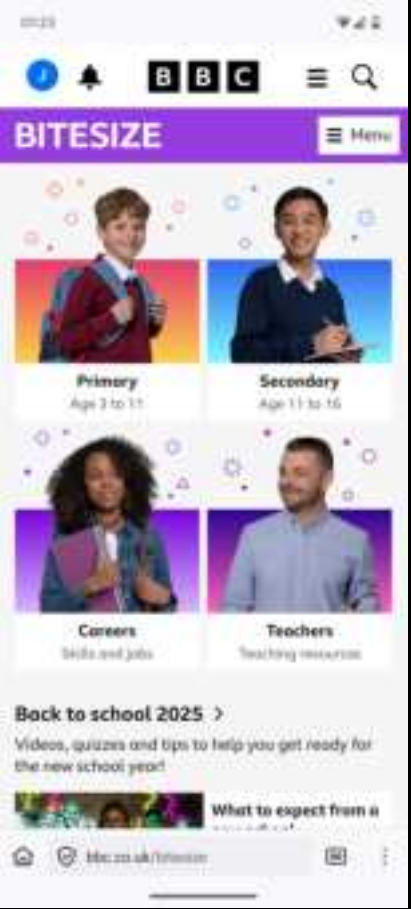
It was all a lie

***well... not really, it's complicated**

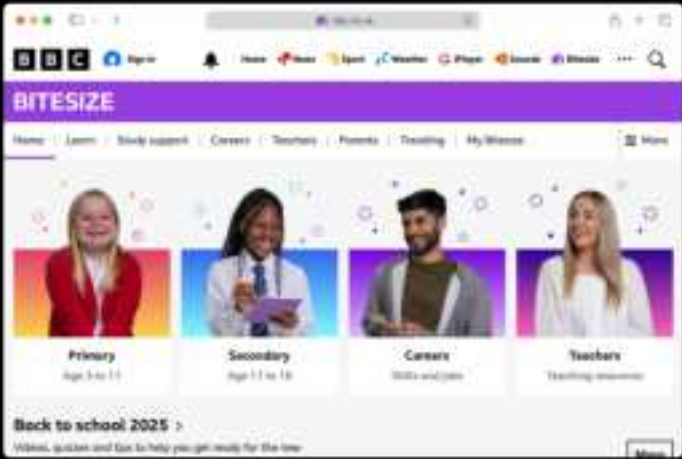
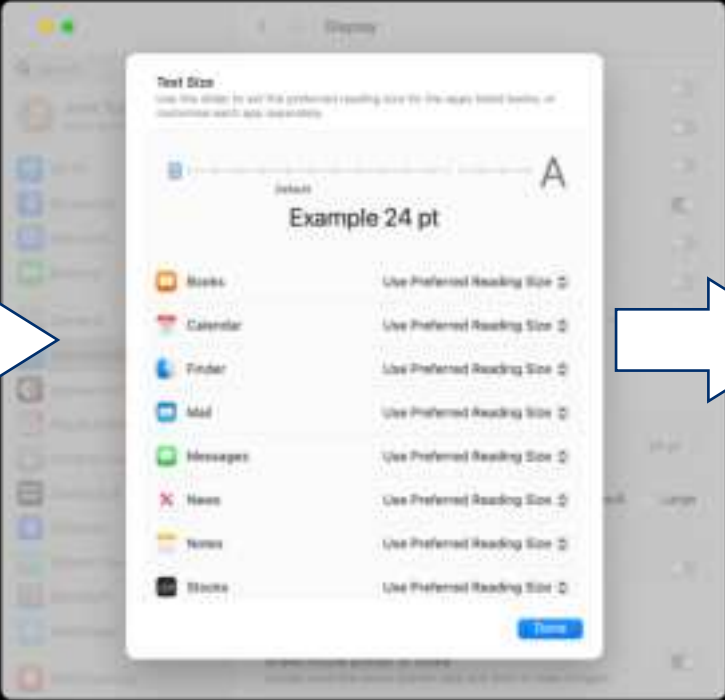
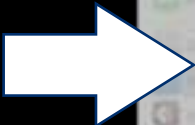
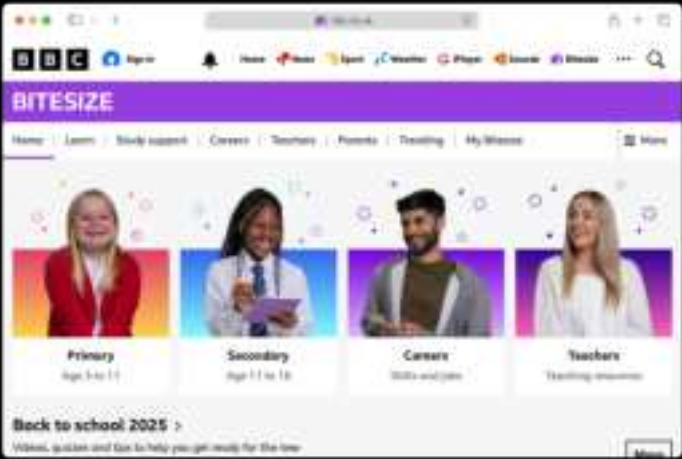
It happens on all mobile web browsers



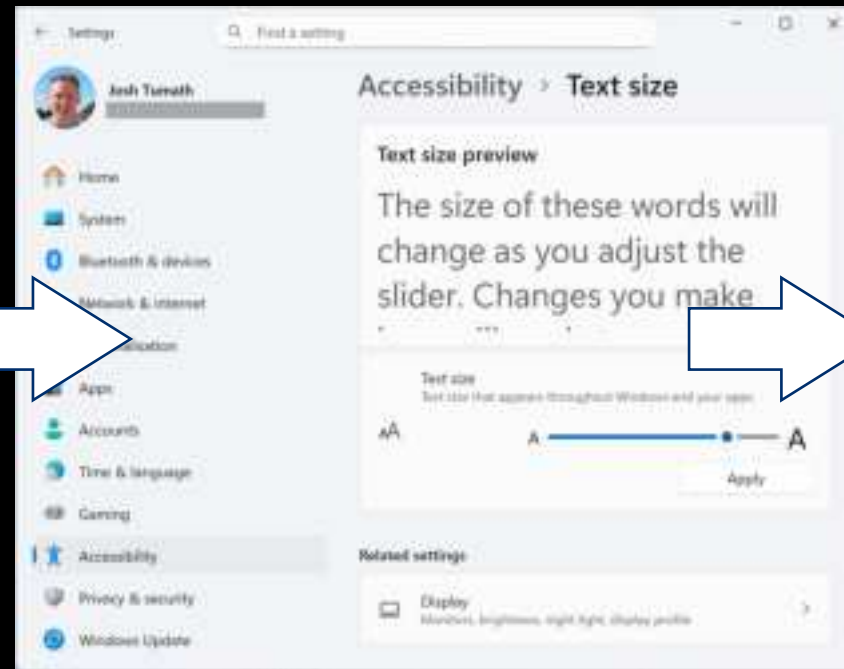
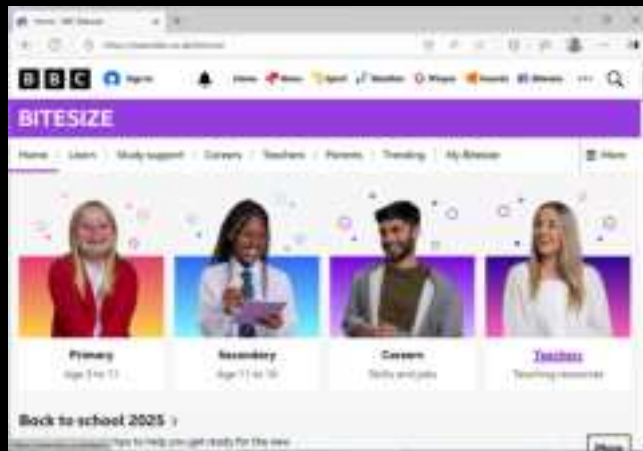
Firefox kind of works... but it's zooming in, not making text bigger



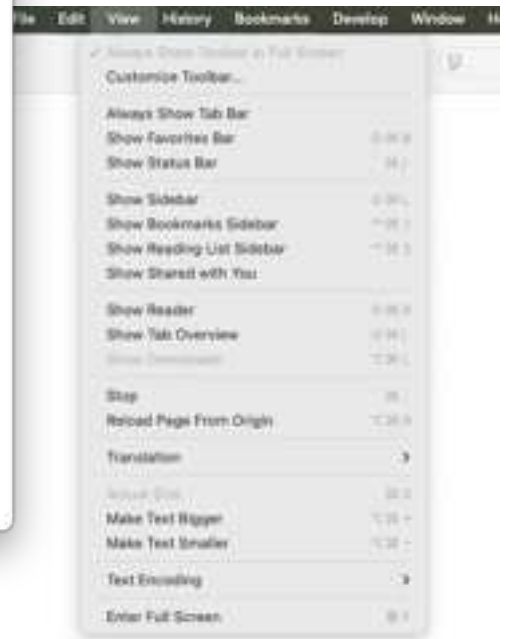
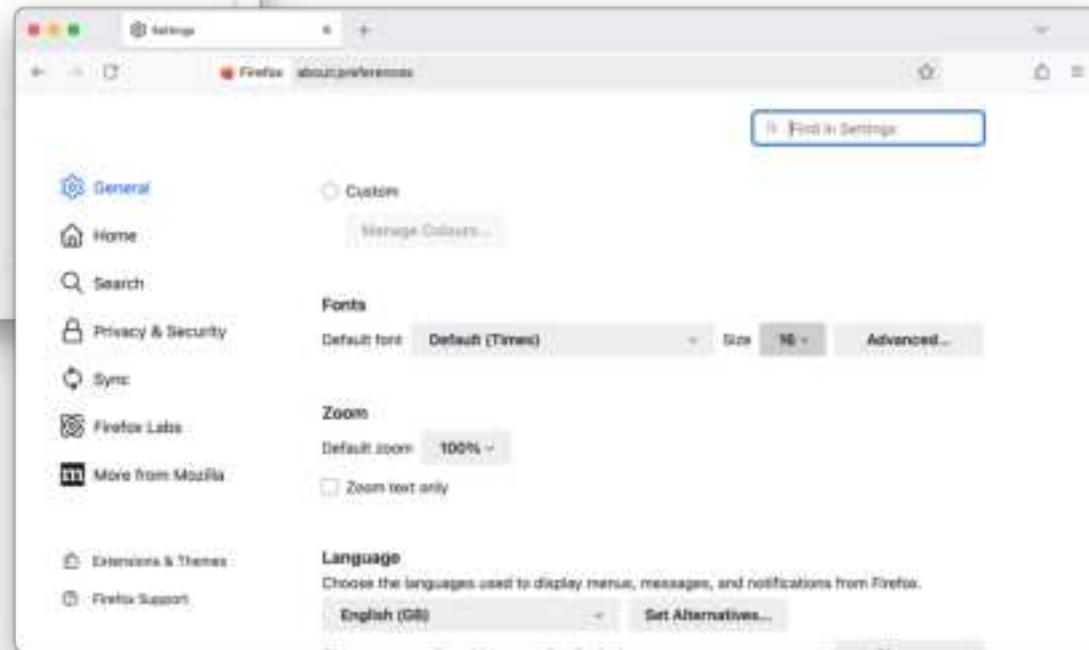
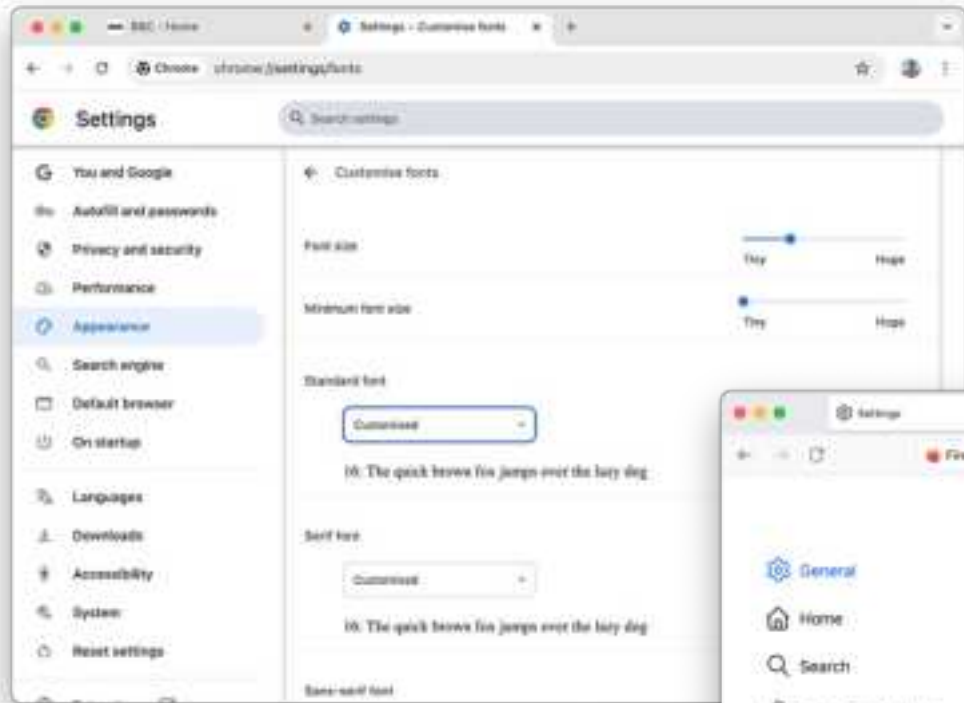
On macOS, nothing happens



On Windows, the entire app zooms



**But you can
increase it on
desktop browsers**



How can we fix it?

[css-env][css-values] UAs inconsistent in how OS font settings affect the default font-size `medium` #10674

[Edit](#)[New Issue](#)[Open](#)

JoshTumath opened on Aug 2, 2024 · edited by JoshTumath

Edits Member

EDIT: Progress updates

2025-06-21

`preferred-text-scale` is confirmed as the name of the new environment variable.

We're proposing a new `<meta>` tag at [#12380](#). In that issue, we'll also propose to retract the `pem` unit.

2025-05-22

CSSWG resolved to adopt:

- an `env(preferred-text-scale)` variable, which returns a multiplier for the OS or UA text size scaling. e.g. if the user increases the font scale in their OS accessibility settings to 150%, the `env()` var returns `1.5`. Authors can use it as a multiplier in a `calc()`.
- a `<length>` unit called `pem`, which returns a length multiplied by the `preferred-text-scale`. Authors can use it for

Assignees

No one - [Assign yourself](#)

Labels

[Needs Edits](#)[css-env-1](#)[css-values-4](#)

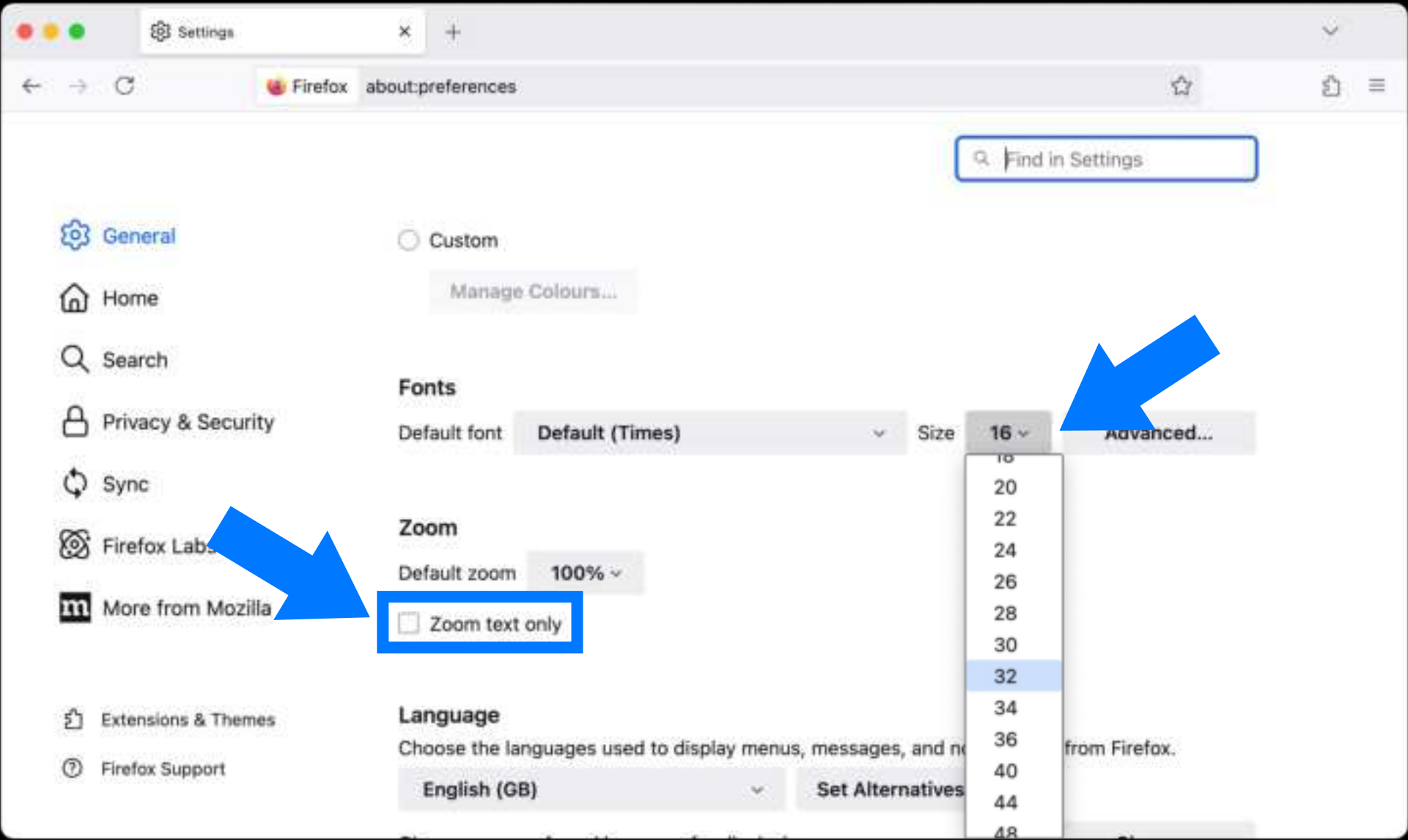
Type

No type

Projects

[CSSWG Agenda TPAC 2024](#)Status [Thursday morning](#)[CSSWG January 2025 meeting](#)Status [Thursday morning](#)

**What would happen if we just make
browsers scale all web pages with
the OS text scale now?**




Settings x css - Google Search x +

www.google.com/search?q=css&sca_esv=10f4dc90a0b84bd0&sxsrf=AE3TIFO_ 200%

Google CSS


AI Mode All Images Videos News Maps Shopping More Tools

Cascading Style Sheets (CSS) is a style sheet language used for specifying the presentation and styling of a document written in a markup language such as HTML or XML












Settings × Following — Bluesky × +

← → ↻ bsky.app 200% 🗑️ ☆ 🏠 ☰

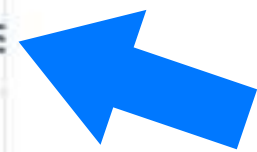
 **Following** Discover Popular With Friends

emerging young talent makes bold use of freshly washed laundry to make a powerful statement about the unfairness of having to hang up your own clothes before being allowed to eat the Indian takeaway that was bought for you.





Settings Apple (United Kingdom) www.apple.com/uk/ 200%

Store Mac iPad iPhone Watch Vision AirPods TV & Home Entertainment Accessories Support

iPhone

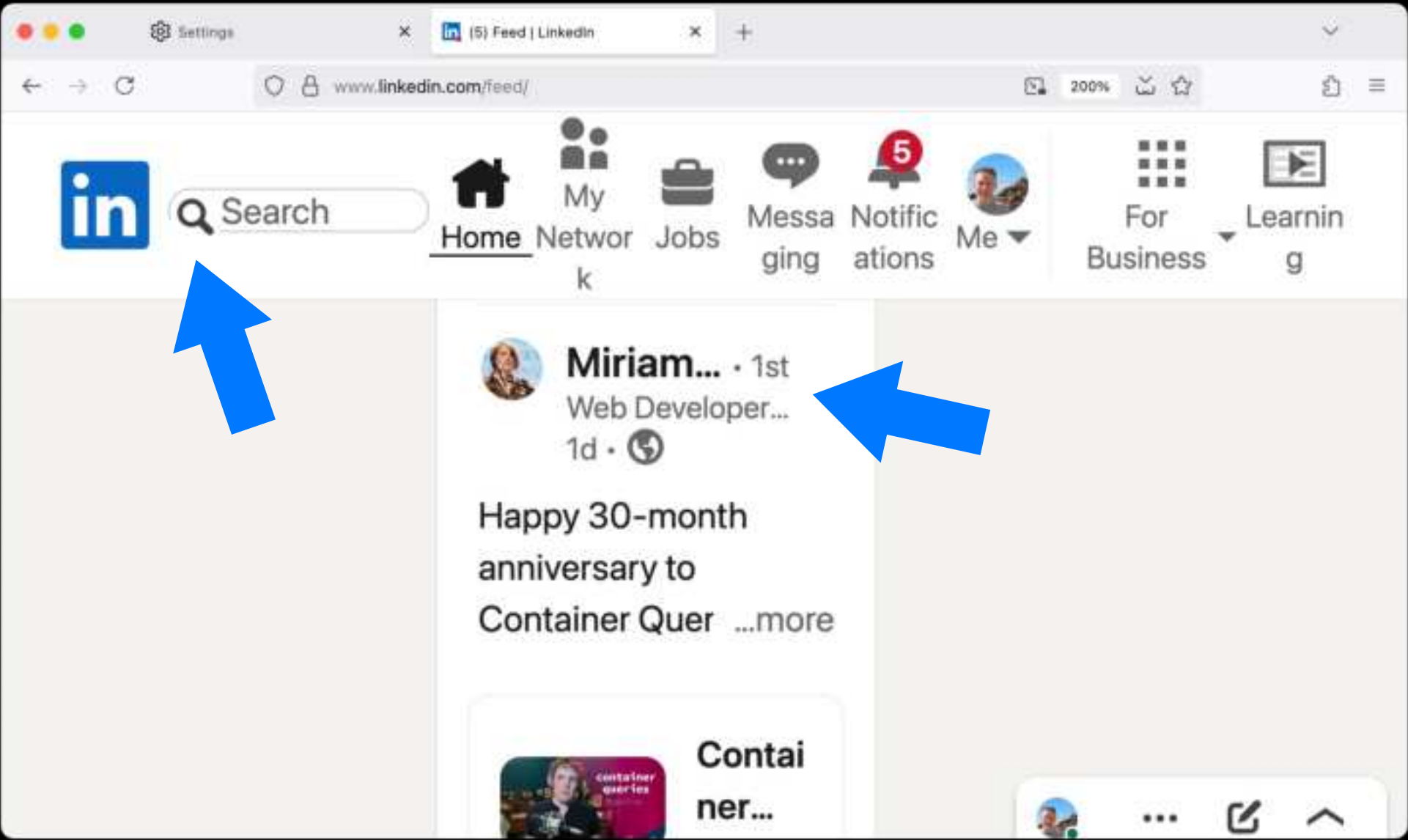
Meet the iPhone 16 family.

[Learn more](#) [Shop iPhone](#)

Built for Apple Intelligence.

www.apple.com/uk/iphone/






Settings Disneyland Paris - tickets, deal: X

www.disneylandparis.com/en-gb 200%

DisneyLAND PARIS Park Hours Log in

Our 2 Parks Dining Book now Before you arrive

Tickets Hotel + Tickets



Disney Music Festival

Hotel + Tickets Tickets Transport* + Hotel + Tickets

Hotels & Resorts Rooms and Guests

www.disneylandparis.com/en-gb/seasons/disney-music-festival

Trending



Strictly Come Dancing is back!
Who's taking part in 2025?



QUIZ: Shark bites - Deadly with Steve



www.bbc.co.uk/cbbc/quizzes/strictly-come-dancing-cast-reveal



**Our websites are not ready to
support text scaling**

**If we're going to fix this,
we need to opt-in**

A proposal to the CSSWG with David Grogan and Phil Rogers from the Google Chrome team

env(preferred-text-scale)

To get the user's text scale preference



@joshtumath.uk

Preview Code Blame

Explainer: `env(preferred-text-scale)`

Authors

- David Grogan (@davidsgrogan), Google
- Josh Tumath (@JoshTumath), BBC
- Philip Rogers (@progers), Google
- Ian Kilpatrick (@bfgeek), Google

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 - [Windows 11](#)
 - [How authors detect and respond to OS-level font setting](#)
- [Proposal](#)
 - [Pros and cons](#)

How preferred-text-scale is calculated



How to use preferred-text-scale

```
.button {  
  font-size: calc(16px * env(preferred-text-scale));  
}
```

A second proposal to the CSSWG



A third proposal to the CSSWG

```
<meta name=text-scale content=scale>
```

To change the page's default font size to the user preference



@joshtumath.uk

Preview Code Blame



Explainer: meta tag for text scaling behavior

Note

This explainer is to be merged into the [env\(preferred-text-scale\) Explainer](#) once the proposed behaviors in both have been finalized and implemented. Currently, these proposals remain separate to highlight the new additions presented herein.

Authors

- Josh Tumath (@JoshTumath), BBC
- David Grogan (@davidsgrogan), Google
- Philip Rogers (@progers), Google

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 - [The per unit](#)

Introduction

Operating systems and web browsers provide global accessibility settings for the user to increase their system text scale. For authors to conform to the [WCAG 2.2 Resize Text success criterion](#), they must ensure that the user can increase the text size by up to 200%. Users can increase their text size globally in their operating system settings. However, browsers do not currently scale all text in a document based on the *OS-level* text scale setting.

The new CSS `env(preferred-text-scale)` variable provides a mechanism for authors to respect the user's text scale setting that they've set either in their operating system or web browser settings. Authors can use it to scale the `font-size` and alter the layout accordingly.

So in summary...

The opt-in

A new HTML metadata tag

```
<meta name="text-scale" content="scale">
```

Or to opt-in more selectively

A new environment variable

```
env(preferred-text-scale)
```

When opted-in with the meta tag, it *just works*

When the user increases their text scale setting

- The default font size increases
- Font-relative CSS units like `rem` and `em` scale up
- Even in Media Queries



```
<meta name="text-scale" content="scale">
```

```
<style>
```

```
  h1 {
```

```
    font-size: 2rem; ← 64px
```

```
    @media (min-width: 30rem) { ← 960px
```

```
      font-size: 3rem; ← 96px
```

```
    }
```

```
  }
```

```
</style>
```

What happens to rem and em in media queries?

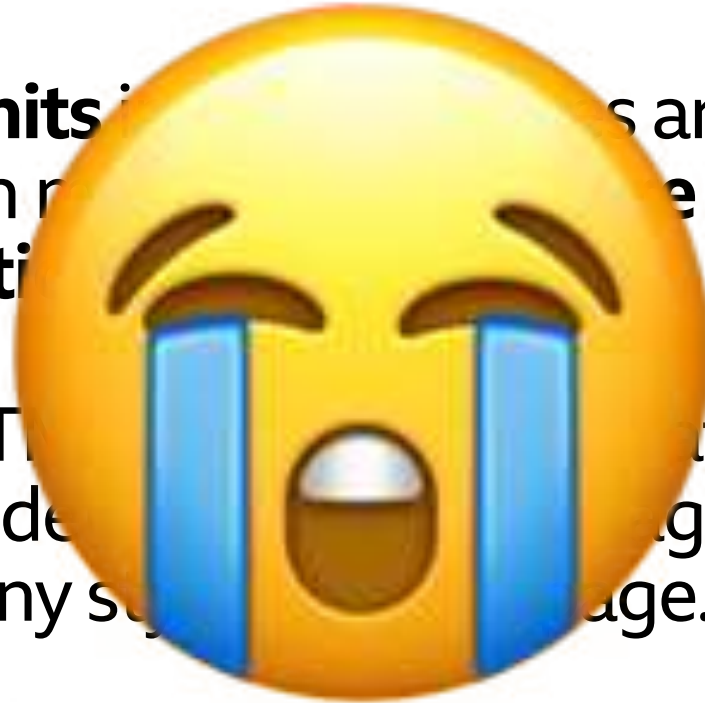
And why does it matter?

```
:root {  
  font-size: medium; ← 16px  
  (default font size)  
}  
  
.box {  
  height: 1rem; ← 16px  
}  
  
@media (min-width: 10rem) { ← 160px  
  /* ... */  
}
```

```
:root {  
  font-size: 20px;  
}  
  
.box {  
  height: 1rem; ← 20px  
}  
  
@media (min-width: 10rem) { ← 160px  
  /* ... */  
}
```

Relative length units are based on the **initial value**, which is **never based on results of declarative**

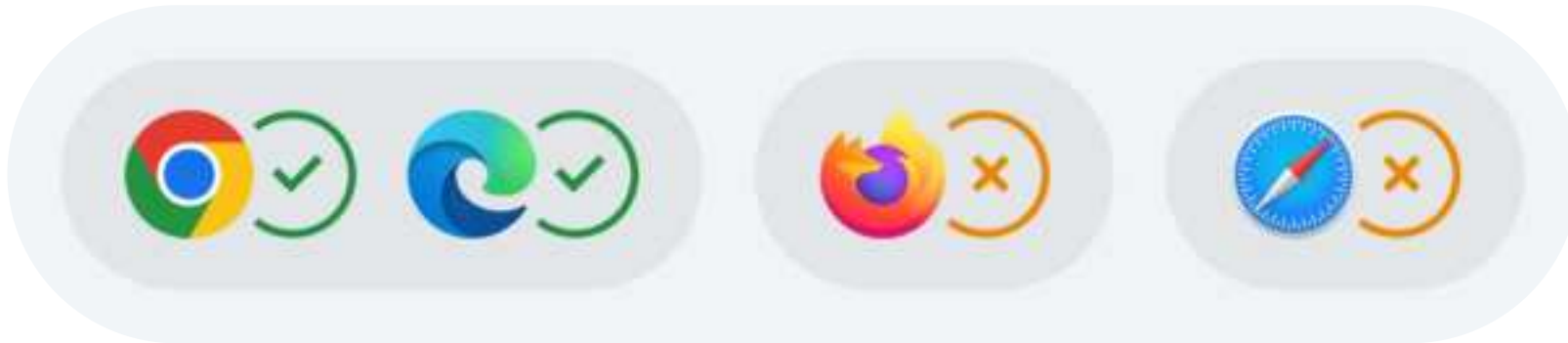
For example, in HTML, the value of font-size, determined by the browser or the user's preferences, not any style sheet.



Media Queries specification

Browser support for <meta name="text-scale">

 Limited availability





What's new in Web UI

Chrome for Developers



#Google

meta name=text-scale



```
<meta name="text-scale" content="scale" />
```

```
<style>  
h1 {  
  font-size: 2.25em;  
}  
</style>
```



9:58 / 43:54



YouTube

B B C

@joshtumath.uk

How to test text scaling

The *Web Content Accessibility Guidelines 2.2* have these success criteria:

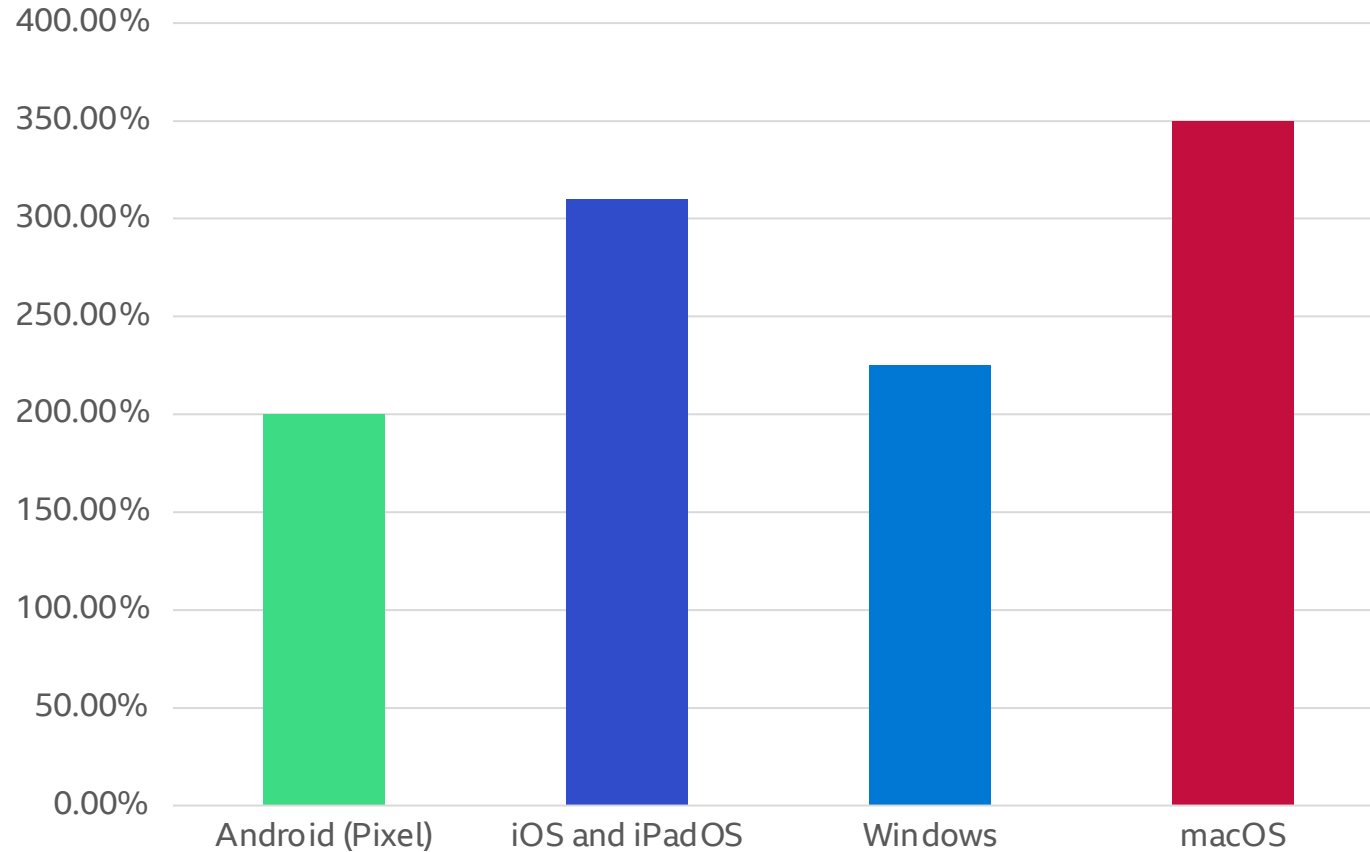
1.4.4 Resize Text

1.4.10 Reflow

We can do better!



Maximum text scale on each OS



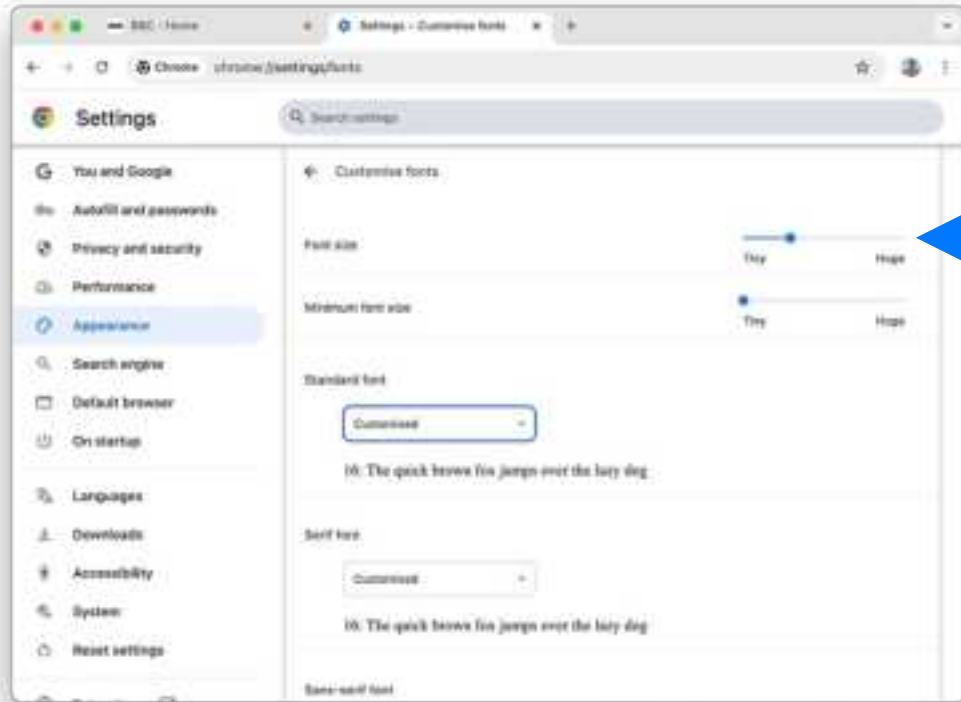
Android (Pixel)	200%
iOS and iPadOS	310%
Windows	225%
macOS	350%



We can test on desktop browsers

Testing text scaling

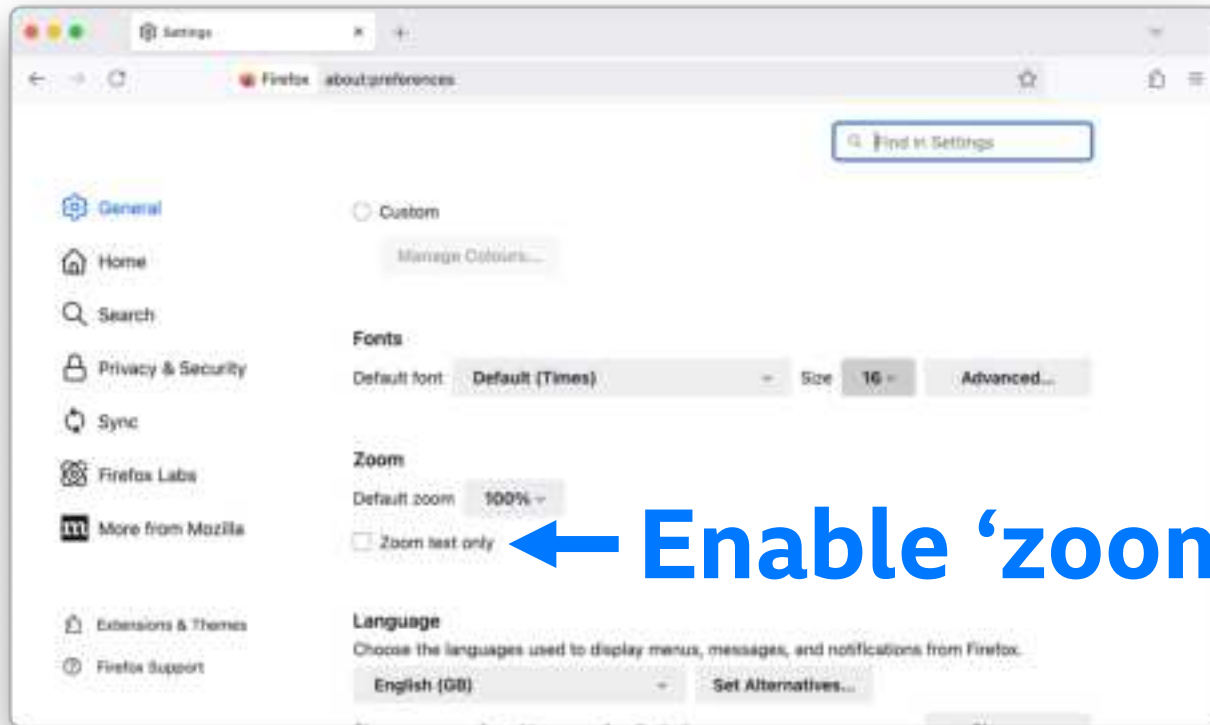
On Chrome and Edge desktop



← Drag the 'Font size'

Testing text scaling

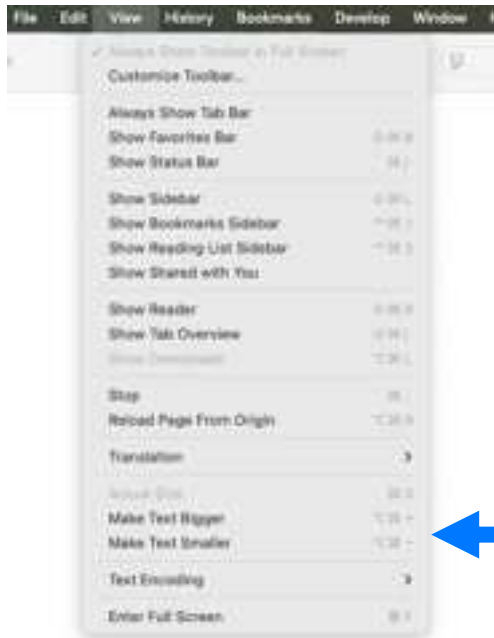
On Firefox desktop



← Enable 'zoom text only'

Testing text scaling

On Safari desktop



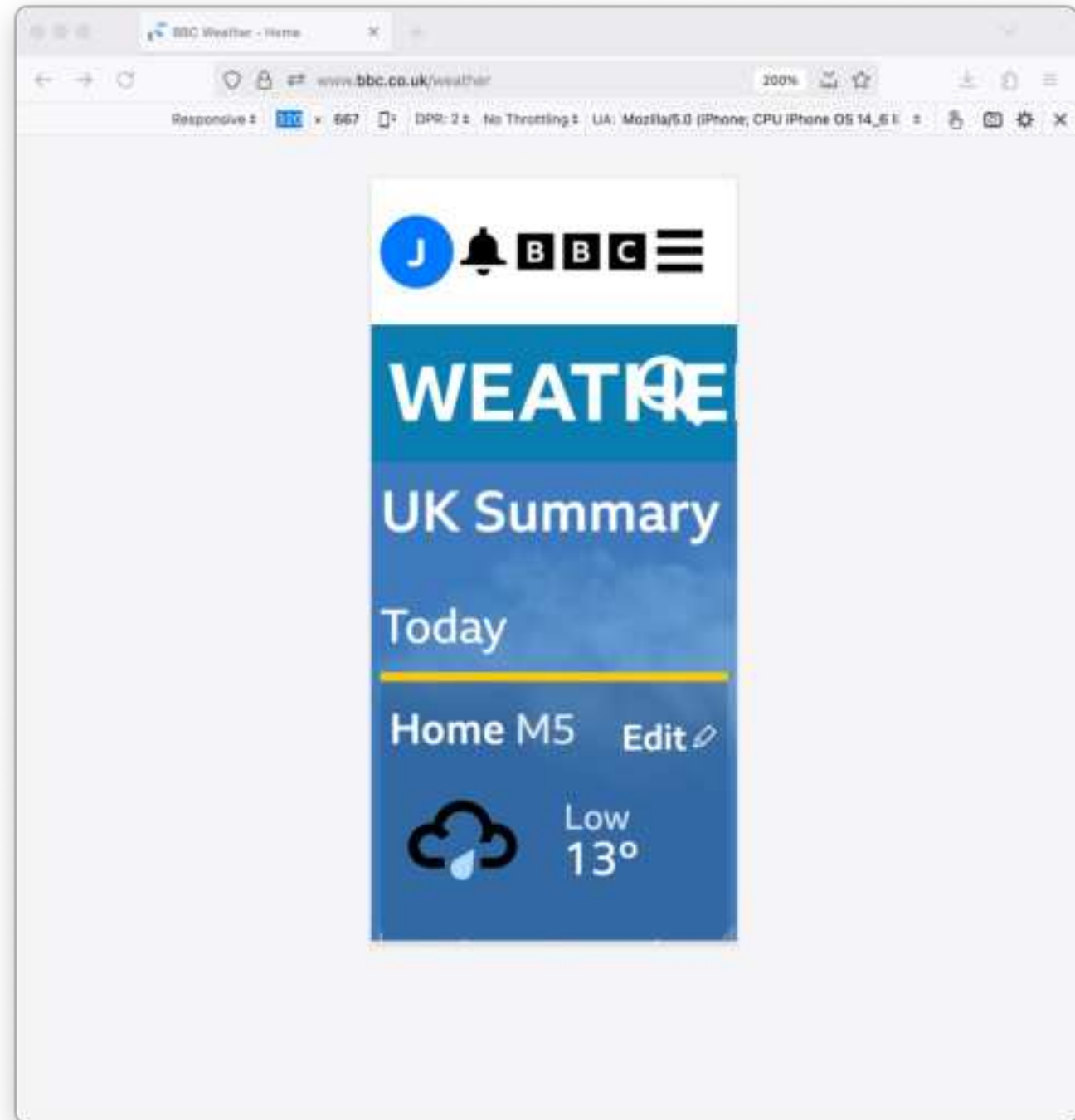
← Press **⌘ ⌘** and **+ or -**

Imagine a mobile user

- Scale the text to **200%**
- Set the viewport to **320px width**

Is the content readable?

Does the content overflow the viewport horizontally?



Let's fix our websites' text scaling

1. Design your website 'mobile and scaled up first'



2. Don't change the default font size

Don't change the default font-size

```
:root {  
  font-size: 10px;  
}
```



```
:root {  
  font-size: 62.5%; /* = 10px */
```



```
:root {  
  font-size: 16px;  
}
```



```
:root {}
```



3. Be careful using px units for layouts

Use rem units in media queries

```
.layout-sidebar {  
  display: grid;  
  
  @media (width ≥ 900px) {  
    grid-template-columns: 1fr 320px;  
  }  
}
```

Game moves in favour of cats in Pet Roomba Wrestling



Scores

Cats-on-Trent

5 - 2

Dogshire County

Onward journeys



Lorem ipsum dolor sit amet, consectetur adipiscing elit



Lorem ipsum dolor sit amet, consectetur adipiscing elit

Use rem units in media queries

```
.layout-sidebar {  
  display: grid;  
  
  @media (width ≥ 900px) {  
    grid-template-columns: 1fr 20rem;  
  }  
}
```

↓

Game moves
in
favour
of
cats
in Pet
Room!
Wrestl.....

Onward journeys

.....



.....
Lorem ipsum dolor sit amet, consectetur
adipiscing elit



Scores



Use rem units in media queries

```
.layout-sidebar {  
  display: grid;  
}   
@media (width ≥ 56.25rem) {  
  grid-template-columns: 1fr 20rem;  
}   
}
```

↓

Game moves in favour of cats in Pet Roomba Wrestling



Scores

4. Only use px units for spacing

Use relative or proportional units for sizing text and maybe icons

e.g. rem, em, ch, fr, vh, % units

width

height

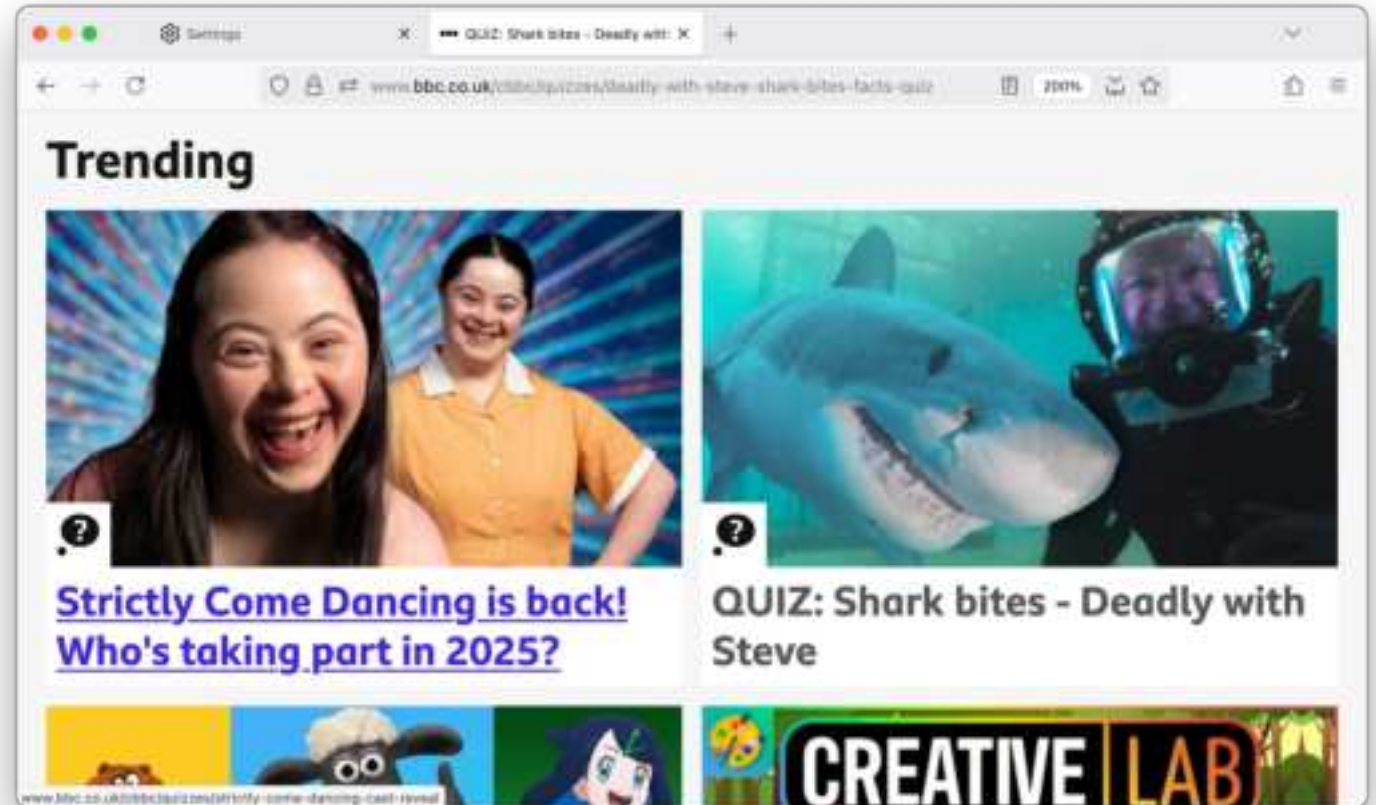
flex-basis

grid-template

font-size

background-size

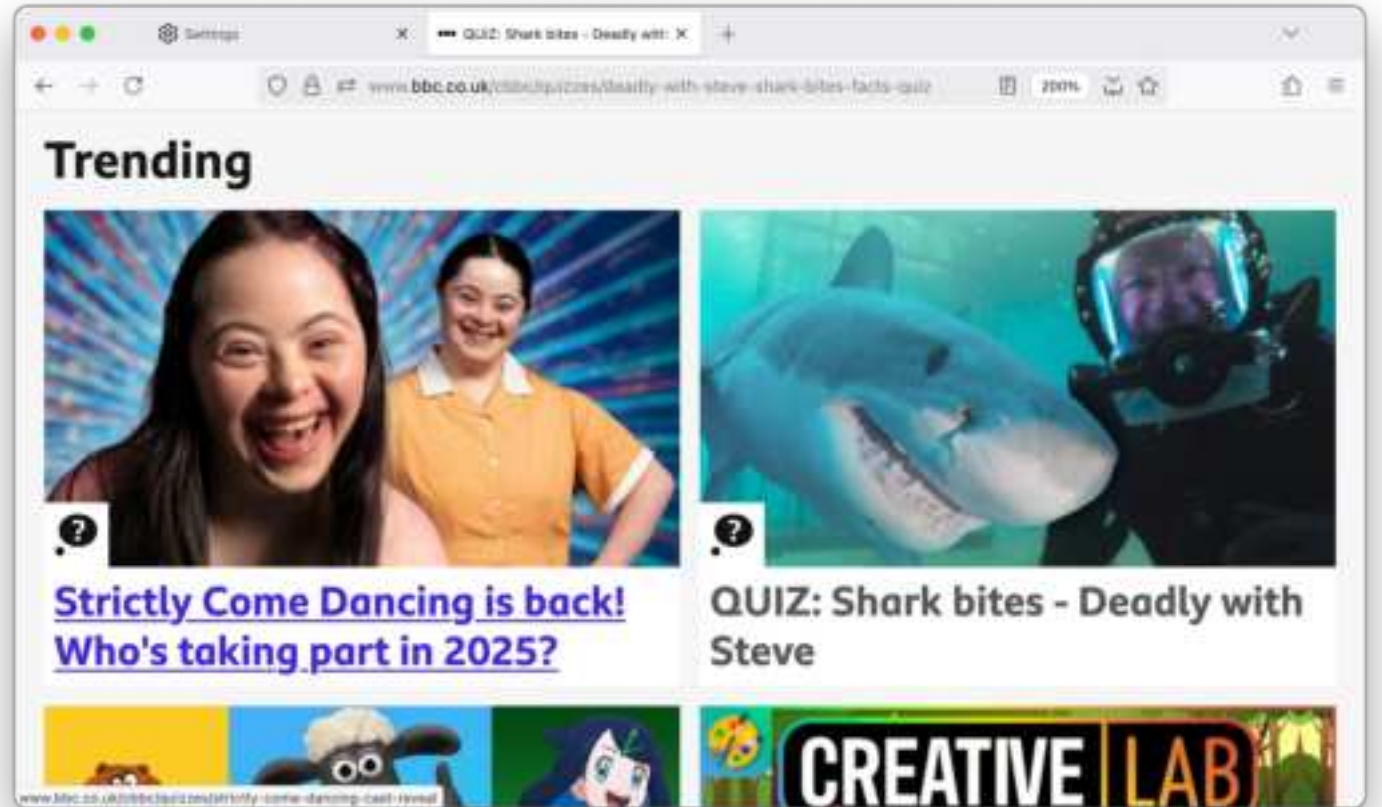
etc...



Use absolute length units for spacing

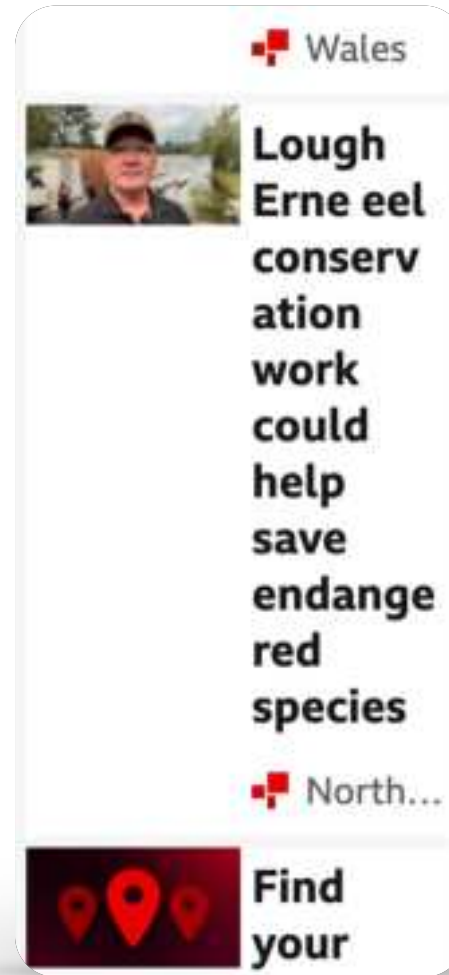
e.g. px units

gap
margin
padding
etc...



**5. Only use single
column layouts on very
small viewports**

Switch to a single column layout at $\approx 300\text{px}$ viewport width



Have you tried container queries?

They let you **change things depending on the width of a container that you choose**, rather than the viewport.

```
.cards-list li {  
  container-type: inline-size;  
}  
  
.card {  
  display: grid;  
  grid-template-columns: 1fr;  
  
  @container (width > 18.75rem) {  
    grid-template-columns: 1fr 1fr;  
  }  
}
```

6. Be careful when setting fixed lengths

Always let the **content** dictate the
height of something


Settings Disneyland Paris - tickets, deal: X

www.disneylandparis.com/en-gb 200%

DisneyLAND PARIS Park Hours Log in

Our 2 Parks Dining Book now Before you arrive

Tickets Hotel + Tickets



Disney Music Festival

Hotel + Tickets Tickets Transport* + Hotel + Tickets

Hotels & Resorts Rooms and Guests

www.disneylandparis.com/en-gb/seasons/disney-music-festival

Avoid a fixed height when there's text inside

```
nav {  
  height: 48px;  
}
```



Our 2
Parks

Places to
stay

Dining

Book
now

Before you
arrive

```
nav {  
  min-height: 48px;  
}
```



Our 2
Parks

Places to
stay

Dining

Book
now

Before you
arrive

Check out *Defensive CSS* by Ahmad Shadeed

defensivecss.dev

B B C

@joshtumath.uk



7. Watch out for

**massive
headings**

With 200% text scale

The
ancient
trick
making
food
waste
useful
and
tasty



ALESSANDRA MASSA,
ANNA-KATHARINA PREIDL

A Stanford University lab has made a cheese-like product from food waste

Christine Ro

Technology Reporter

5 June 2026, 00:10 ...

Vayu Hill-Maini's lab has created a new cheese, or at least something that tastes like cheese, but is actually made

How to prevent large headings

Use this formula to reduce the rate of scaling

font size × (**rate of increase** × (preferred text scale - 1) + 1)

```
@function --font-size-scaling-rate(--font-size <length>, --scaling-rate <number>) {  
  result: calc(var(--font-size) * (var(--scaling-rate) * (env(preferred-text-scale) - 1) + 1));  
}  
  
h1 {  
  font-size: --font-size-scaling-rate(3rem, 0.5);  
}
```

8. Be ready to opt-in to text scaling

Be ready to opt-in to text scaling

Check out the documentation

```
<meta name="text-scale" content="scale">
```



B B C
PRODUCT GROUP

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