

RESPONSIVE WEB DESIGN

"Day by day, the number of devices, platforms, and browsers that need to work with your site grows. Responsive web design represents a fundamental shift in how we'll build websites for the decade to come."

- Jeffrey Veen



STATE OF TECHNOLOGY

There are thousands of device screen sizes

Can't make assumptions about devices accessing our content

Increasingly mobile

Can't make assumptions about users location and context

e.g. waiting in line at the grocery store, on the couch at home, on desktop computer at work

WHAT IS RESPONSIVE WEB DESIGN?

Responsive sites *respond* to their environment

Designs adapt to **screen size**, and **orientation**, and **use cases**

Uses flexible designs that make no assumptions about screen size

Use **breakpoints** to alter the design based on viewport width

RESPONSIVE METHODS

Three main types:

Dedicated mobile site

Barely used these days

Adaptive (fixed content widths)

Not frequently used

Fluid (percentage based widths)

Most common

RESPONSIVE METHODS: DEDICATED MOBILE SITE

Separate sites (content and design) for desktop and mobile

Each individually may utilize another responsive method

Requires detecting a specific device or browser, then routing user to appropriate site

Considered bad practice:

Complicated SEO requirements (search engine rankings)

Difficult/expensive to maintain multiple websites

User agent spoofing (can be error prone, serving the wrong site to the wrong users)

RESPONSIVE METHODS: DEDICATED MOBILE SITE

LIVE UPDATES: Dorian's aftermath | TRENDING: World Beard Day | White Claw | NOAA | 'It Chapter Two' | Chris Duncan | Drew Brees | Great North Run |

Hundreds line up at this port to evacuate



LIVE UPDATES

Many recount horrific stories of survival by breaking through rooftops or swimming onto boats to try and ride out the storm

The Bahamas' death toll is rising as 70,000 residents left homeless by Hurricane Dorian seek food and shelter

More tropical storms are brewing on both sides of the US

Bahamas resident: Everyday we hear about new bodies found ➔

Here's how you can help Hurricane Dorian victims

Jet skiers saved 100 people trapped in flooded homes

Dorian makes one final stop in the US before racing to Canada

Lenny Kravitz: This is how you can help Bahamians ➔

Today in politics



OPINION

Pence's disastrous trip abroad sparks wit in response

Biden still bests fellow Dems on electability, polls show

Trump has concerns over economy despite public displays of confidence

McConnell vows to protect Kentucky middle school from Trump's grab for wall funding

Analysis: Democratic cattle call ignites New Hampshire primary

Taxpayers are funding the Trump White House's misinformation campaign

NWS union chief calls NOAA 'disgusting' over Alabama statement

Pompeo gets an unexpected grilling

Lemon: Come on, man. Lead the country. ➔

Top stories



Former St. Louis Cardinals player dies at 38, team says

Another 'Mona Lisa' may have been hiding in a bank vault

Mayor tried to ban book featuring kiss between two men. Now it's sold out

Pamela Anderson clashes with 'The View' hosts on Julian Assange ➔

Fox's Ed Henry returns after donating part of his liver to his sister

Man who hid spy camera in toilets at James Bond studios jailed for 16 months

Yosemite National Park visitor dies after falling from the Half Dome cables

Scientists may just have resolved Loch Ness monster mystery ➔

• LIVE TV • Edition ▾ 🔍 ⚡

CNN | 9/7/2019 | Listen

Main Stories

- [The Bahamas' death toll is rising as 70,000 residents left homeless by Hurricane Dorian seek food and shelter](#)
- [Here's how you can help Hurricane Dorian victims](#)
- [Jet skiers saved 100 people trapped in flooded homes in the Bahamas](#)
- [More tropical storms are brewing on both sides of the US](#)
- [Former St. Louis Cardinals player dies at 38, team says](#)
- [Eva Longoria and other celebrities write letters of support for actress Felicity Huffman ahead of her sentencing](#)
- [Fox's Ed Henry returns after donating part of his liver to his sister](#)
- [Italian GP practice shortened after horrific Formula 3 crash](#)
- [Pizza Hut is making a comeback. Its NFL deal is one reason why](#)
- [Must-watch videos of the week](#)
- [Bound by 2 mass shootings, football rivals El Paso and Odessa unite on the field](#)
- [The NFL kicks off to big ratings in a big year for the league](#)

TOP STORIES

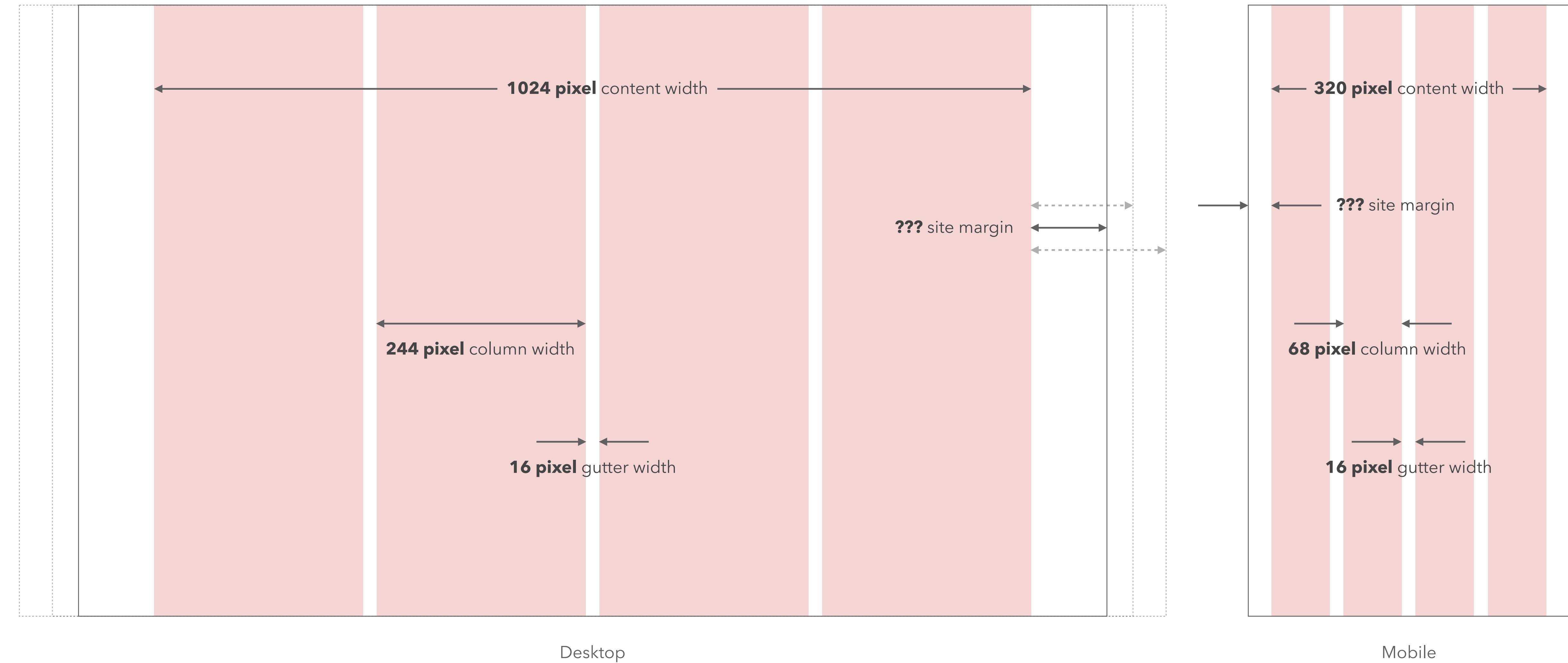
RESPONSIVE METHODS: ADAPTIVE

At each **breakpoint** there is a **fixed content width**

Easier when retrofitting an existing, non-responsive site

More control of design because you specify fixed content widths
(e.g. mobile = 320 pixels wide; tablet = 768 pixels wide; desktop = 1024 pixels wide, etc.)

RESPONSIVE METHODS: ADAPTIVE



RESPONSIVE METHODS: FLUID

Percentage based widths

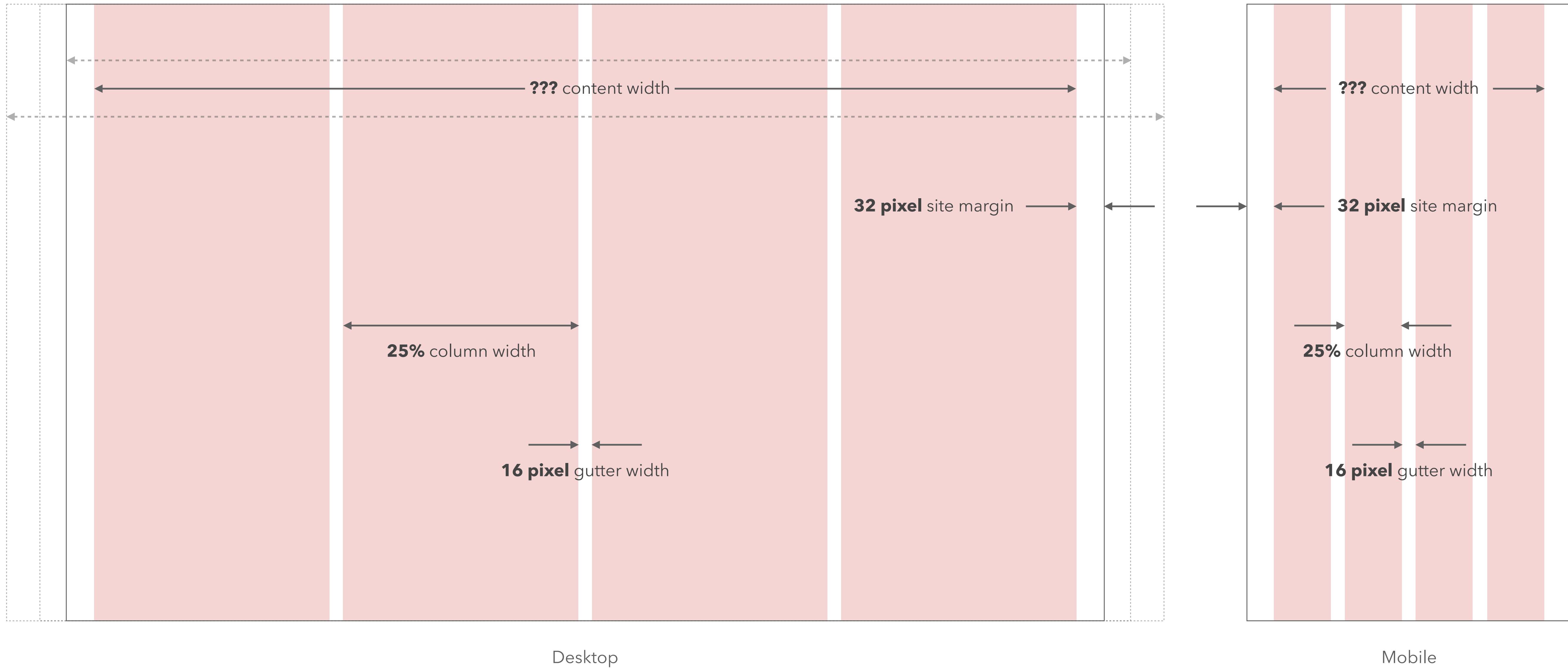
Adapts to almost any screen size

Content width grows as viewport grows

Alter content and layout at specific breakpoints
e.g. from single column on mobile to 2 column on tablet

Less control of design because content widths
are percentages of viewport width
And you, the designer, don't get to control the viewport width

RESPONSIVE METHODS: FLUID



WHAT ARE WE DESIGNING FOR?

Design for **content** and **situations** not screen sizes

Hierarchy, structure and **prioritization**

Properly structured content is portable to future platforms

Users in different situations require different information (e.g. a event):

Prior to committing to attending (desktop, tablet, mobile)

Purchasing tickets (desktop, tablet, mobile)

Getting to the event (mobile)

Navigating at the event (mobile)

Looking up personal schedule at the event (tablet, mobile)

Reviewing session videos post event (tablet, desktop)

THINGS TO CONSIDER

Simplicity

Limited screen real estate

User may have less focus (distractions on mobile devices)

Information density

Speed and performance

Slow internet connections

Less powerful devices

MOBILE FIRST APPROACH

Constraints of a restricted screen size

Often these constraints help make tough decisions about what information is mandatory

Progressive enhancement: As screen size increases,
add additional information and complexity

The larger screen size allows for more complex designs without overwhelming users

Consider design stress points

At what point (viewport width) does the design break?

Introduce breakpoints at those key points.

EXAMPLES

THE WEATHER NETWORK

The Weather Network mobile app interface for Toronto, ON. The top bar shows the location "Toronto, ON" and a search bar. Below are tabs for "Hourly", "36 Hours", "7 Days", and "14 Days". The main content area displays the "Next Hour" forecast for Saturday:

Time	Icon	Temp (°C)	Wind (km/h)	Wind Gust (km/h)	Humidity (%)
Sat 2 pm	Sun with clouds	20	14	21	30%
Sat 3 pm	Sun with clouds	21	15	22	30%
Sat 4 pm	Sun with clouds	22	16	24	30%
Sat 5 pm	Sun with clouds	22	18	-	20%

The Weather Network desktop website interface for Toronto, ON. The top bar includes a search bar, language selection ("EN"), account access, and sign-in options. The main header features the "The Weather Network" logo and a "SEARCH FOR LOCATION" bar.

The main content area shows the "Toronto, ON Weather" forecast for Saturday, September 7:

Time	Temp (°C)	Wind (km/h)	Wind Gust (km/h)	Humidity (%)
Sat 2 pm	19	14	21	30%
Sat 3 pm	22	15	22	30%
Sat 4 pm	22	16	24	30%
Sat 5 pm	22	18	-	20%

Below the forecast are three news cards:

- Hurricane Dorian is accelerating towards Nova Scotia
- Ontario: Here's why the streak of "spoiled warm Septembers" has been interrupted
- Oil spill caused by Hurricane Dorian is 'catastrophic,' environmentalists report

A "Did You Know?" section provides information about pollen counts. The bottom of the page features a "Hourly Forecast" table for Saturday, September 7 to Tuesday, September 10, and a "VIEW LAST 24 HOURS" button.

TIFF

See Today's Showtimes

TIFF 2019

Today is the Share Her Journey Day of Action

TIFF 2019: Best Bets for Saturday

We've got your weekend plans right here.

TIFF DOCS
Women Make Film: A New Road Movie Through Cinema Part 1
Mark Cousins

TIFF 2019
Available tickets

tiff

Festival 2019 Support Join Buy Tickets



SEE WHAT'S AVAILABLE

TIFF 2019

Today is the Share Her Journey Day of Action

Join people from all over the world by posting with #ShareHerJourney and pledging to support women in film.

TIFF 2019: Best Bets for Saturday

We've got your weekend plans right here.

TIFF DOCS
Women Make Film: A New Road Movie Through Cinema Part 1
Mark Cousins

CONTEMPORARY WORLD CINEMA
Knuckle City
Jahmil X.T. Qubeka

DISCOVERY
Hope
Maria Sødahl

SPECIAL PRESENTATIONS
Seberg
Benedict Andrews

TIFF 2019
Available tickets

Lots of great films to choose from. And if you can't find what you want, we'll recommend you something cool.

TIFF 2019
Black Conflux

"Both a sensory journey through adolescence and sexual awakening and a meditation on social alienation and sexual frustration."

 GOV.UK

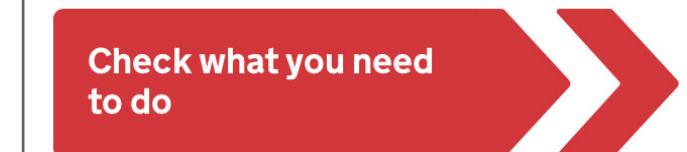
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The UK will leave the EU on 31 October 2019.

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Parenting, civil partnerships, divorce and Lasting Power of Attorney

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Tools and guidance for businesses

Childcare and parenting
Includes giving birth, fostering, adopting, benefits for children, childcare and schools

Citizenship and living in the UK
Voting, community participation, life in the UK, international projects

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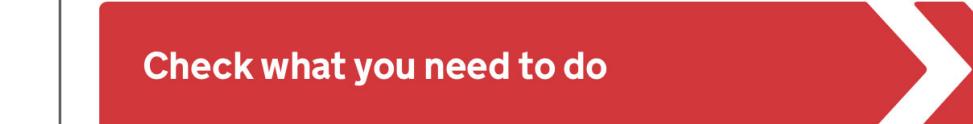
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Benefits Includes eligibility, appeals, tax credits and Universal Credit	Disabled people Includes carers, your rights, benefits and the Equality Act	Money and tax Includes debt and Self Assessment
Births, deaths, marriages and care Parenting, civil partnerships, divorce and Lasting Power of Attorney	Driving and transport Includes vehicle tax, MOT and driving licences	Passports, travel and living abroad Includes renewing passports and travel advice by country
Business and self-employed Tools and guidance for businesses	Education and learning Includes student loans, admissions and apprenticeships	Visas and immigration Visas, asylum and sponsorship
Childcare and parenting Includes giving birth, fostering, adopting, benefits for children, childcare and schools	Employing people Includes pay, contracts and hiring	Working, jobs and pensions Includes holidays and finding a job
Citizenship and living in the UK Voting, community participation, life in the UK, international projects	Environment and countryside Includes flooding, recycling and wildlife	
Crime, justice and the law Legal processes, courts and the police	Housing and local services Owning or renting and council services	

25
Ministerial departments

405

The websites of all [government departments](#) and many other agencies and public bodies have been merged into GOV.UK.

Here you can see all [news and communications](#), [statistics](#) and [consultations](#).

QUESTIONS?