Power to the people

How have electrical appliances changed our lives over the past 150 years?

PAST

Late 1800s

1888
Scientist and inventor Nikola Tesla patents the induction motor, the type of electric motor that powers most appliances around the home today. Yet the first electric motors were far too heavy and powerful for domestic devices, and it would be another 30 years before mains electricity was in the home[3].

1901
Before electrical appliances were invented, wealthier families had domestic servants to do their chores for them. By the 20th Century, there were about 1.5 million servants in the UK[4].

1900s

1908
Using an old broom handle and a pillow case amongst other things, **an asthmatic caretaker called James Murray Spangler came up with the first portable electric vacuum cleaner.** He sold his idea to a family member, a man called William Hoover... Hoover's products were so successful that even today we still talk about doing the 'hoovering'.

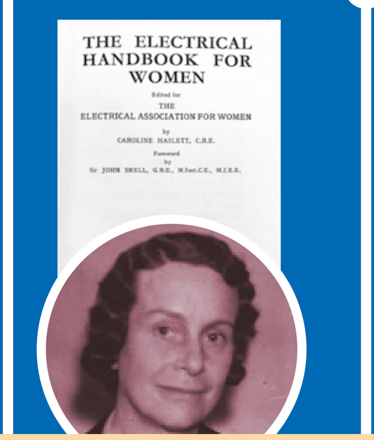
THE WORLD WARS

After **WWI (1914-1918)**, fewer domestic servants were available, so there was more demand for appliances in the home. During **WWII (1939-45)** many women worked in typically 'male' jobs – a change that had a lasting effect on society. Both wars also created new technologies, such as microwave ovens and computers.

1922
A survey of women found that their two most desired home appliances were a machine to wash the dishes and a vacuum cleaner, so they could spend less time on boring household chores[5].

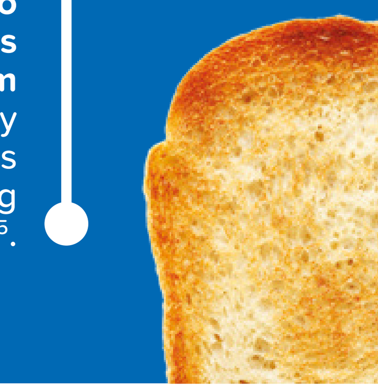
1920s

1924
An engineer called Caroline Haslett created *The Electrical Handbook for Women* to teach women how to use electricity safely, fit a plug and wire lights.



1926
Scotsman John Logie Baird gave **the first ever public demonstration of television,** changing the way we get entertainment forever.

1926
The idea behind the modern-day toaster came out of WWI and one man's quest to prevent burnt toast. Charles Strite's automatic toaster used springs and a mechanical timer to switch off the heat and pop up the toast when it was done – which is how most toasters work today.



1929
Miele launched Europe's first electric top-loading dishwasher – yet the stock market crash of the same year and start of war 10 years later, meant it was another three decades before the dishwasher took off[6].

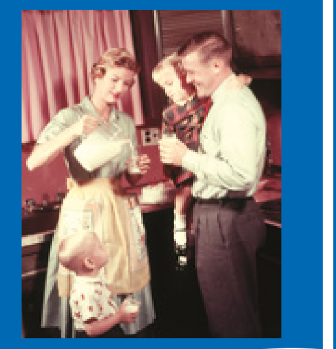
1930s

1933
One in three British people had mains electricity in their home[7].

1937
The first completely automatic washing machine went on sale[8]. The Bendix Washer was such a novelty that guests would often be shown how it worked. Previously, housewives typically spent a day a week on laundry alone.

1947
Inventor Percy Lebaron Spencer sold the first microwave oven. He came up with the idea during WWII. He'd spent time developing microwave technology using 'magnetrons' to detect German planes. Legend has it his idea came to him after walking past a magnetron emitting microwaves, and it melted the sweets in his pocket[9]!

1950s
Adverts for home appliances tended to portray women as traditional housewives and mothers – despite many working during the war.



MASS CONSUMERISM
(1950s-1960s)

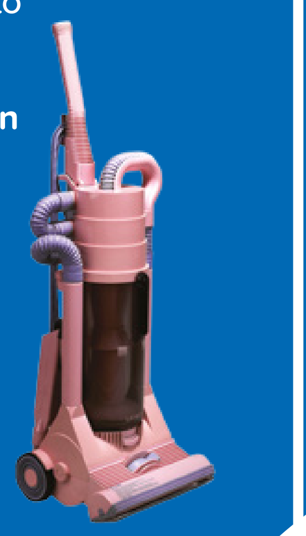
In the years following the wars, the UK enjoyed a period of wealth: wages were rising and nearly everyone had a job. Manufacturing technology had improved rapidly and mass production meant that high quality electrical goods could now be made in huge numbers. This made many home appliances more affordable[1].

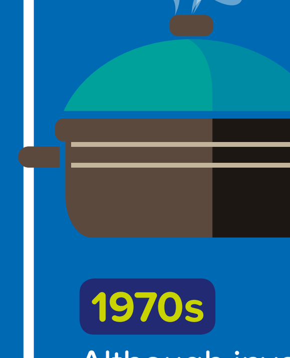
1953
The coronation (crowning) of Queen Elizabeth II was a defining moment, as almost 20 million people watched the event live on TV. For the first time, more TV sets than radios were made in the UK too[11].

1953
The first 'TV dinner' launched in the US[10]. Sold frozen and ready to be heated up in the oven, it freed women – the primary chefs – from the chore of cooking an evening meal.

1970s

1978
James Dyson noticed that his vacuum didn't clean well when the bag filled up with dust. So he decided to build a bag-free cleaner. **It took Dyson five years, and 5,127 prototypes to come up with the G-force, the first bagless vacuum cleaner.**





1970s
Although invented in 1936, **the slow cooker – an electric pot that cooks food slowly at low temperatures – didn't take off until the 1970s.** It became popular with working women, who were out all day but still needed to get dinner ready in the evening[12].

1980s
The microwave oven soared in popularity, driven by demand for convenient ready meals. This was partly due to more women working, but also more people living on their own, as a result of the rising divorce rate.

THE ENVIRONMENT
(1980s+)

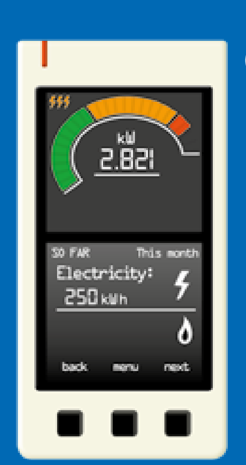
Climate change became headline news when scientists discovered a hole in the ozone layer – which protects the Earth from the harmful effects of the sun – was growing, due to man-made activity. As a result, manufacturers started to consider the environmental impact and energy efficiency of appliances.

1980s
Computer control became more common in appliances, like washing machines. This led to the introduction of more sophisticated programmes, but also low water washes, which are better for the environment[13].

1987
Nations agreed one of the most successful environmental agreements ever. **The 'Montreal Protocol' brought an end to CFCs – gases known to be destroying the ozone layer – being included in fridges and aerosols[14].**

1990s

1992
The EU introduced energy consumption labels for appliances from G (worst) to A (best). The scheme was so effective that new top grades A+, A++ and A+++ had to be added.



2015
Smart meters start to be rolled out across the UK. For the first time, households could see on their in-home display (*pictured*) how much electricity and gas they were using – and how much it cost.

THE INTERNET REVOLUTION
(2010+)

Wireless technology and smart meters have given rise to a new breed of 'smart' appliances that can be controlled remotely with a phone and connect to one another via a wireless network. Many are also more energy efficient: some washing machines can sense how full they are to save power and water[2].

2017
The European Union bans vacuum cleaners rated at more than 900 watts and introduces energy efficiency labels for new models, as part of new rules on the ecodesign and energy efficiency of appliances to tackle climate change[15].

PRESENT

2017
Major changes are announced to the way we buy and sell electricity. **The changes will enable suppliers to offer 'smart tariffs' – with peak and off-peak periods of electricity** – and introduce new industry standards, so appliances can respond automatically to use electricity when it's cheapest[16].

Sources: [1]http://www.skwirk.com/p-c_s-14_u-189_t-505_c-1863/nsw/history/australia-s-social-and-cultural-history-in-the-post-war-period/the-impact-of-changing-technology-on-everyday-life/home-appliances [2]https://www.thoughtco.com/history-of-washing-machines-1992666 [3]http://www.explainthatstuff.com/induction-motors.html; History of electricity poster [4]http://www.bbc.co.uk/news/magazine-19544309 [5]http://www.bbc.co.uk/schools/0/ww1/26189775 [6]http://www.independent.co.uk/life-style/gadgets-and-tech/features/the-secret-history-of-the-dishwasher-2119320.html [7]History of electricity poster [8]https://books.google.co.uk/books?id=oUkEAAAAMBAJ&pg=PA118&redir_esc=y#v=onepage&q&f=false [9]http://www.famousinventors.org/percy-spencer [10]http://www.nwhm.org/blog/foodiefriday-5-kitchen-appliances/ and https://web.archive.org/web/20070206224839/; www.swansonmeals.com/WebPortals/Default.aspx?tabid=29 [11]http://www.bbc.co.uk/historyofthebbc/research/general/tvstory [12]http://blackrokkitchendesign.com/the-resurgence-of-the-slow-cooker/ [13]https://www.miele.com/en/com/history-2089.htm [14]https://www.thoughtco.com/g00/history-of-freon-4072212 and https://www.livescience.com/17347-climate-success-montreal-protocol-ozone.html [15]http://ec.europa.eu/growth/industry/sustainability/ecodesign_en [16]https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/631724/upgrading-our-energy-system.pdf

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