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# Darwin's scientific women

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Activity 1b: Portrait of a marriage  
Subject: English  
2 x 50 Minutes

## Suggested preparation

Presentation:  
[Darwin's scientific women](#)

## What do I need?

Letter 437: Charles Darwin to Emma Wedgwood, [14 Nov 1838]  
Letter 441: Emma Wedgwood to Darwin, [21-22 Nov 1838]  
Letter 1408: Charles Darwin to Emma Darwin, [21 April 1851]  
Letter 1412: Charles Darwin to Emma Darwin, [23 April 1851]  
Letter 1414: Emma Darwin to Charles Darwin, [24 April 1851]  
Letter questions

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The letters between Charles Darwin and his wife Emma show their devotion to one another at key moments in their lives, such as during their engagement, or at the tragic loss of their daughter, Annie. How do private letters create a picture of a person that is different from a public perception?

## What do I do?

1. Read through the letters, 'Who's who?' and answer the questions after the letters.
2. What can you infer about the personality of each person from the letters? How would you describe their relationship? Back up your view with evidence from the letters.
3. Discuss how letters can inform an understanding of the story of someone's life and their personality. What are the limitations of using letters for this purpose?
4. Using any of the letters exchanged, draft a script for a scene between Emma and Charles that expresses an aspect of their relationship. Include some language contained in the letters. Consider the stage set, stage directions, descriptions of their expressions, costume, props etc.

# Letter 437: Charles Darwin to Emma Wedgwood, 14 Nov 1838

Wednesday morning  
Shrewsbury

My dear Emma

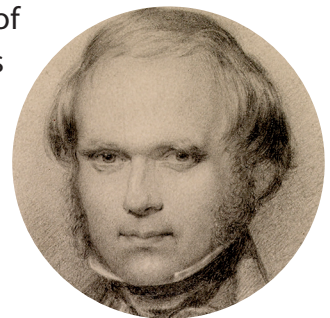
Marianne & Susan will have told you what joy and happiness the news gave all here. We have had innumerable cogitations and geese after the cogitations; and the one conclusion, I exult in, is that there never was anybody so lucky as I have been, or so good as you.— Indeed I can assure you, many times, since leaving Maer, I have thought how little I expressed, how much I owe to you; and as often as I think this, I vow to try to make myself good enough somewhat to deserve you ...



... The question of houses,—suburbs versus central London,—rages violently around each fire place in this house.— Suburbs have rather the advantage at present; & this, of course, rather inclines one to seek out the argument on the other side.— The Governor gives much good advice to live, wherever it may be, the first year prudently & quietly. My chief fear is, that you will find after living all your life with such large & agreeable parties, as Maer only can boast of, our quiet evenings dull.— ...

... Like a child that has something it loves beyond measure, I long to dwell on the words my own dear Emma.— as I am writing, just as things come uppermost in my mind, I beg of you not to read my letters to anyone, for then I can fancy, I am sitting by the side of my own dear future wife, & to her own self, I do not care what nonsense I talk:—so let me have my way, & scribble, without caring whether it be sense or nonsense.— ...

... My life has been very happy & very fortunate and many of my pleasantest remembrances are mingled up with scenes at Maer, & now it is crowned.— My own dear Emma, I kiss the hands with all humbleness and gratitude, which have so filled up for me the cup of happiness— it is my most earnest wish, I may make myself worthy of you.



Good bye  
Most affectionately Yours

Chas Darwin

I would tear this letter up & write it again, for it is a very silly one, but I cant write a better one.— ...

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# Letter 441: Emma Wedgwood to Charles Darwin, 21–22 Nov 1838

Wednesday

My dear Charles

... When I am with you I think all melancholy thoughts keep out of my head but since you are gone some sad ones have forced themselves in, of fear that our opinions on the most important subject should differ widely. My reason tells me that honest & conscientious doubts cannot be a sin, but I feel it would be a painful void between us. I thank you from my heart for your openness with me & I should dread the feeling that you were concealing your opinions from the fear of giving me pain.



It is perhaps foolish of me to say this much but my own dear Charley we now do belong to each other & I cannot help being open with you. Will you do me a favour? yes I am sure you will, it is to read our Saviours farewell discourse to his disciples which begins at the end of the 13th Chap of John. It is so full of love to them & devotion & every beautiful feeling. It is the part of the New Testament I love best. This is a whim of mine it would give me great pleasure, though I can hardly tell why I don't wish you to give me your opinion about it ...

Goodbye my dear Charles yours most affectly

Emma W.

You will kindly mention any faults of spelling or style that you perceive as in the wife of a literary man it wd not do you credit, any how I can spell your name right I wish you cd say the same for mine.



## Letter 1408: Charles Darwin to Emma Darwin, 21 Apr 1851

My dear Emma

To go on with the sick life. After Dr G. left yesterday at 7. 30' (& Fanny wrote whilst he was in the room) we bathed her with vinegar & water, & it was delicious to see how it soothed her. In the night she rambled for two hours & became considerably excited, but I find the Dr. does not care so much for this, as he has ceased to fear the head, which was his main fear. viz stupefaction coming on.— But to return when the Dr. came at 11. 30' he pronounced her decisively better ...

... I was in wonderful spirits about all this & no doubt it is very good, but I have just now been a good deal damped (8. A.M) by the Dr. finding her pulse tremulous & his strong dislike to her bowels having acted loosely— I tell you all this, for it will prevent the too strong & ultimately wretched alternations of spirits. An hour ago I was foolish with delight & pictured her to myself making custards (whirling round) as, I think, she called them. I told her I thought she would be better & she so meekly said “thank you” Her gentleness is inexpressibly touching ...

... We have again this morning sponged her, with vinegar, again with excellent effect. She asked for orange this morning, the first time she has asked for anything except water. Our poor child has been fearfully ill; as ill as a human being could be: it was dreadful that night the Dr. told me it would probably be all over before morning. If diarrhæa will but not come on, I trust in God we are nearly safe.— I have hopes that vomiting is stopped for today.—

My own dear how it did make me cry to read of your going to Annie's garden for a flower. I wish you could see her now the perfection of gentleness, patience & gratitude,—thankful till it is truly painful to hear her.— poor dear little soul.—

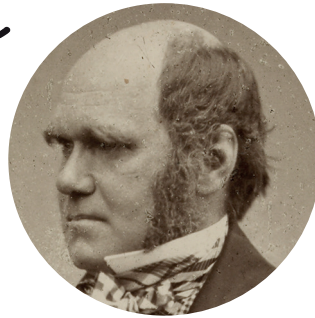
12. o'clock.— She has appeared rather more prostrated with knees & feet chilly & breathing laboured, but with some trouble we have got these right, & she is now asleep & breathing well. She certainly relishes her gruel flavoured with orange juice, & has taken table-spoon every hour.— No sickness, no purging: I wish there was a little less prostration.— She wanders & talks more today a good deal.—

3 o'clock. She is going on very nicely & sleeping capitally with breathing quite slow— We have changed the lower sheet & cut off the tail of her Chemy & she looks quite nice & got her bed flat & a little pillow between her two bony knees— She is certainly now going on very well.

Your

C. D.

Charles Darwin



## Letter 1412: Charles Darwin to Emma Darwin, 23 Apr 1851

[Malvern] Wednesday

My dear dearest Emma

I pray God Fanny's note may have prepared you. She went to her final sleep most tranquilly, most sweetly at 12 o'clock today. Our poor dear child has had a very short life but I trust happy, & God only knows what miseries might have been in store for her. She expired without a sigh. How desolate it makes one to think of her frank cordial manners.

I am so thankful for the daguerreotype. I cannot remember ever seeing the dear child naughty. God bless her. We must be more & more to each other my dear wife— Do what you can to bear up & think how invariably kind & tender you have been to her.— I am in bed not very well with my stomach. When I shall return I cannot yet say. My own poor dear dear wife.



C. Darwin



## Letter 1414: Emma Darwin to Charles Darwin, 24 Apr 1851

My dearest

I know too well what receiving no message yesterday means. Till 4 o'clock I sometimes had a thought of hope, but when I went to bed I felt as if it had all happened long ago. Don't think it made any difference my being so hopeful the last day. When the blow comes it wipes out all that preceded it & I don't think it makes it any worse to bear. I hope you have not burnt your letter I shall like to see it sometime. My feeling of longing after our lost treasure makes me feel painfully indifferent to the other children but I shall get right in my feelings to them before long. You must remember that you are my prime treasure (& always have been) my only hope of consolation is to have you safe home to weep together. I feel so full of fears about you. They are not reasonable fears but my power of hoping seems gone ...



— Your letter is just come & I feel less miserable a good deal in the hopes of seeing you sooner than I expected, but do not be in a hurry to set off. I am perfectly well. You do give me the only comfort I can take in thinking of her happy innocent life. She never concealed a thought, & so affectionate so forgiving. What a blank it is. Don't think of coming in one day. We shall be much less miserable together.

yours my dearest





## Letter questions:

1. In letter 437, what is the 'chief fear' that Darwin anticipates when they are married?
2. What does he ask Emma to do in this letter and why?
3. In letter 441 Emma expresses concern before they are married. What is the 'most important subject' that she worries they will have different opinions about? Why does she want Darwin to read an extract from the Bible? Why does she not want him to talk to her about it?
4. Despite her spiritual concerns, what evidence is there of playfulness in this letter?
5. In letter 1414, what will be the only consolation for Emma in her grief?

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# Darwin's scientific women

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## Who's who?

### Elizabeth Garrett Anderson

(9 June 1836 – 17 December 1917)

Physician and supporter of women's rights.

Elizabeth Garrett was born in Whitechapel, London. She was initially educated at home but at 13 was sent to boarding school. She was always interested in politics and current affairs but decided to pursue a career in medicine at a time when women were prevented from qualifying as doctors in Britain. She worked as a nurse while studying privately and was eventually allowed to attend the dissecting room and lectures at Middlesex Hospital until a petition by male students forced her to leave. She was refused entry to several medical schools but continued to study privately until taking her Society of Apothecaries exam in 1865, and was awarded a licence to practise medicine. She was the first British woman qualified to do so, but could not work at any hospital so set up her own practice, eventually providing medical care to poor women and children across London. In 1874, she co-founded the London School of Medicine for Women, the only teaching hospital to offer courses for women. A colleague of Darwin's wrote to Emma Darwin to ask her to support Garrett's becoming Professor of Physiology at Bedford College for Girls.



Image of Elizabeth Garrett Anderson ©National Portrait Gallery, London. NPG x8446. CC BY-NC-ND 3.0

## Mary Elizabeth Barber

(5 January 1818 – 4 September 1899)

Naturalist, artist, and writer in South Africa.

Mary Barber (born Bowker) was born in Wiltshire, England, but her family emigrated to South Africa when she was 2 years old. She shared her older brother's keen interest in natural history. Barber studied birds, moths, reptiles, and plants, often creating detailed and accurate paintings. A number of species of insects and plants that she discovered were named after her. She corresponded with leading scientists and exchanged letters with Joseph Hooker at Kew Gardens for thirty years. Hooker read some of her scientific papers at the Linnaean Society and several were published at Darwin's recommendation.

Image of Mary Barber courtesy of Paul Tanner-Tremaine and Ammy Hahndiek



## Lydia Ernestine Becker

(24 February 1827 – 18 July 1890)

Suffragist, botanist, and astronomer.

Lydia Becker was born in Chadderton, Lancashire, and was educated at home. She studied botany and astronomy and was awarded a Horticultural Society gold medal in 1862. In 1864, she published *Botany for novices*, which she described to Darwin as being 'chiefly intended for young ladies'. She was founder and president of the Manchester Ladies' Literary Society and persuaded Darwin to send articles for the society to discuss. She was a leading member of the women's suffrage movement, becoming secretary to the Manchester Women's Suffrage Committee from 1867, and later to the Manchester National Society for Women's Suffrage. She was editor of and a regular contributor to the *Women's Suffrage Journal* from 1870. She moved to London and was elected president of the newly formed National Union of Women's Suffrage Societies in 1887. Becker exchanged botanical information, seeds, and plants with Darwin, as well as sharing papers and a copy of her book.



## Antoinette Brown Blackwell

(20 May 1825 – 5 November 1921)

Ordained minister, writer, feminist, and social reformer

Antoinette Brown was born in Henrietta, New York. In early life she began to preach in her local Congregational Church and went on to teach. Throughout her life she was a renowned public speaker. Brown was the first woman to be ordained as a minister in the United States. She was a vociferous social reformer and promoter of women's rights. She later became a Unitarian and remained committed to the idea of that women's participation in religion could improve their status in society. She was also a keen philosopher and scientist. She believed Darwin to be one of the most influential thinkers of her time. After she sent Darwin a copy of her book *Studies in general science*, Darwin's reply to thank the author began 'Dear Sir', as he assumed it had been written by a man.

Image of Antoinette Brown Blackwell from archive.org. Digitised by Wellesley College Library



## Emma Darwin

(2 May 1808 – 7 October 1896)

Wife of Charles Darwin and mother of ten children; assisted her husband.

Emma Darwin (born Wedgwood) was born at the family estate of Maer Hall, Maer, Staffordshire. She was the youngest of seven children and was Charles Darwin's first cousin. Her family belonged to Unitarian church and Emma's faith remained important to her. It was something that she explored and discussed with Darwin at length before they married, and it continued to be actively analysed and debated between them. Emma Wedgwood married Charles Darwin on 29 January 1839 and they were the parents of ten children, three of whom died at early ages. Emma assisted Darwin, writing on his behalf during his many bouts of illness, monitoring his press, translating, and editing.



She also received letters detailing observations (particularly from female correspondents) of the behaviour and emotions of children. She and Darwin kept notebooks on their own children as the children grew up. Such observations informed Darwin's later works on human emotion and behaviour. Emma also wrote on the issue of animal cruelty.

## Henrietta Darwin

(25 September 1843 - 17 December 1929)

Assistant to her father and editor of his published work

Henrietta was the third daughter of Charles and Emma Darwin, born at Down House, the family home in Kent. Henrietta and her brothers and sisters worked closely with their father, making observations and carrying out experiments, even as children. As she grew up, Henrietta also liaised with many of Darwin's correspondents requesting specific observations and collating their responses. Most significantly, Darwin entrusted Henrietta to edit a large proportion of his published work, including his book *The descent of man* regarding which Darwin referred to Henrietta as his 'very dear coadjutor and fellow-labourer'. (Charles Darwin to Henrietta Darwin, 20 Mar 1871). In replying to Henrietta's suggested revisions he wrote:

*'All your remarks, criticisms doubts and corrections are excellent, excellent, excellent'* (Charles Darwin to Henrietta Darwin, 26 July 1867).

In August 1871 she married Richard Buckley Litchfield. Henrietta edited two volumes of family letters after the death of her parents; *Emma Darwin: a century of letters* (1904 and 1915).



## Lady Florence Dixie

(24 May 1855 – 7 November 1905)

Traveller, war correspondent, writer, and feminist

Florence Dixie (born Douglas) was born in Dumfries, Scotland. She was educated at home and in a convent. In 1879, she travelled to Patagonia with her husband and enjoyed big-game hunting (although she later turned against blood sports). She brought home a jaguar and kept it as a pet, describing to Darwin how she had to give it to the zoo as it had grown too big to keep safely. In 1881, Dixie was appointed as a war correspondent of the London *Morning Post* to cover the First Boer War. Dixie was politically active; she was strongly in favour of Irish home rule and women's suffrage. In the preface to her utopian feminist novel, *Gloriana* (1890), she wrote:

'Nature has unmistakably given to woman a greater brain power. This is at once perceivable in childhood ... Yet man deliberately sets himself to stunt that early evidence of mental capacity, by laying down the law that woman's education shall be on a lower level than that of man's ... I maintain to honourable gentlemen that this procedure is arbitrary and cruel, and false to Nature.'

Dixie wrote to Darwin of her observations on Patagonian animal life.

Image of Florence Dixie ©National Portrait Gallery, London. NPG. D16189. CC BY-NC-ND 3.0



## Marianne North

(24 October 1830 - 30 August 1890)

Botanical artist and traveller

Marianne North was born in Hastings, where her father became a Liberal MP. Her family supported Marianne's attempts at singing and painting as suitable activities for a Victorian lady.



After her parents died, Marianne sold the family home and began travelling with the aim of painting the flora of different countries. Between 1871 and 1885, Marianne North visited America, Canada, Jamaica, Brazil, Tenerife, Japan, Singapore, Sarawak, Java, Sri Lanka, India, Australia, New Zealand, South Africa, the Seychelles, and Chile. During this time she travelled alone through the interior of Brazil for a year and through India for eighteen months, often exploring areas unknown to Europeans. Darwin recommended to North that she visit Australia. On her return she visited Down House in 1881, to show the Darwins her paintings of Australian flora. Back in England, she approached Kew Gardens to show her work and paid for a gallery to be built to house the collection. It is part of the attractions at Kew today.

Image of Marianne North ©National Portrait Gallery, London. NPG x128767. CC BY-NC-ND 3.0

## Clémence Royer

(21 April 1820 – 6 February 1902)

Scholar who wrote on economics, philosophy, science, and feminism and translated *On the origin of species* into French.

Royer was born in Nantes, Brittany, and was mainly educated at home. She taught herself French, arithmetic, and music to qualify as a teacher in a secondary school, living in Paris and then England. Royer moved to Lausanne, Switzerland, and in 1859 gave a series of lectures aimed at women; she was a great advocate of women's rights. She was a strong supporter of Darwin's ideas and is most known for her French translation of *On the origin of species* in 1862. Her preface was a strongly expressed sixty-page essay against organised religion and she added her own footnotes to Darwin's text. Darwin wrote to his friend and colleague Asa Gray:

'I received 2 or 3 days ago a French translation of the Origin by a Madelle. Royer, who must be one of the cleverest & oddest women in Europe: is ardent deist & hates Christianity, & declares that natural selection & the struggle for life will explain all morality, nature of man, politicks &c &c!!!'



Image of Clémence Royer from the Biodiversity Heritage Library. Digitised by University of Toronto | [www.biodiversitylibrary.org](http://www.biodiversitylibrary.org)

## Mary Lua Adelia Treat

(7 September 1830 – 11 April 1923)

Naturalist, botanist, and writer



Mary Treat (born Davis) was born in Trumansburg, New York, but after her marriage moved to Vinelands, New Jersey. Her studies of the natural world brought her respect and a good reputation as an observer during her lifetime. As well as travelling to collect specimens, she worked part of the year at home, like Darwin, creating what she referred to as her 'Insect Menagerie', an enclosed space from which she observed the minutiae of the natural world around her. After Treat separated from her husband, Dr Joseph Burrell Treat, in 1874, she supported herself by writing popular science articles for widely read magazines and published five books.

Treat carried out experiments and collected plants and insects for leading naturalists including Asa Gray and Charles Darwin. Darwin commented: 'Your observations and experiments on the sexes of butterflies are by far the best, as far as is known to me, which have ever been made.' Darwin encouraged Treat to publish her results in an academic journal, but she remarked: 'You may wonder at my selecting a literary magazine rather than a scientific one, but I am wholly dependent on my own exertions and must go where they pay best,' Darwin acknowledged Treat's work in his book *Insectivorous plants* (1875.)

Image of Mary Treat © Vineland Historical and Antiquarian Society