CAPITOLO

13

Our Time: Fiction, Science and the Digital Age

"But to me the future is still black and blank—is a vast ignorance, lit at a few casual places by the memory of his story." — H. G. Wells, The Time Machine (1895), Epilogue

OBIETTIVI

1. I can outline Britain and the world from 1979 to today — Thatcher, the end of the Cold War, devolution and the Good Friday Agreement, Brexit, the pandemic, climate change and the digital revolution — and place them on a timeline.
2. I can explain postmodernism, metafiction and climate fiction, and present Ishiguro, McEwan and Atwood with their main works and dates.
3. I can discuss *Never Let Me Go*, *Atonement* and *The Handmaid's Tale* from reading guides: narrator, structure, euphemism and frame.
4. I can describe data and trends precisely, with the right verbs, nouns, adverbs, prepositions and approximations.
5. I can read a chart critically, describe it aloud and write a data commentary of 200–250 words.
6. I can compare Ishiguro's made beings with Homer's golden handmaids and Apollonius' Talos, and connect Calvino and Levi with science and writing.

INDICE DEL CAPITOLO

13.1 History and Society: Britain and the World, 1979–Today 3

13.2 Literature: Postmodernism, Memory and Made Worlds 7

13.3 Texts: Voices that Remember 10

13.4 Language: Describing Data and Trends 13

13.5 Skills: Interpreting Data, Writing a Data Commentary 18

13.6 Connections: Made Beings, Exact Words and the Carbon Atom 23

English 5 · Parte IV · The Contemporary World · versione 1.0
Capitolo 13: Our Time: Fiction, Science and the Digital Age · pagine 437–468 del volume completo · estratto per lo studio

Every year since 1958, on a volcano in Hawaii, scientists have measured the carbon dioxide in the air. In 1959 the yearly average was 315.98 parts per million; in 2025 it was 427.35. Two numbers, sixty-six years apart, tell one of the great stories of our time — and they tell it in a language you will need at university and in any job: the language of data. This last chapter of history before the exam reaches the present. It covers the decades you, your parents and your grandparents have lived through, from Margaret Thatcher to King Charles III, from the fall of the Berlin Wall to smartphones and artificial intelligence.

The novelists of these years ask questions that science has made urgent. What is a human being, if a human can be cloned or a friend can be built? Who controls the story of the past? Can a writer make up for a wrong by writing about it? Kazuo Ishiguro, Ian McEwan and Margaret Atwood are contemporary writers whose novels are still protected by copyright, so you will meet their novels through reading guides rather than extracts. Homer, as so often, got there first: his god Hephaestus is served by golden handmaids who can think and speak.

13.1 History and Society: Britain and the World, 1979–Today

Chapter 11 ended in the 1960s and chapter 12 followed the end of the empire and the Windrush generation. This chapter takes up British history in 1979 and follows it to the present. Because these events are recent, people still disagree about many of them; the aim here is to state what happened and to report the main views fairly. Figura 13.1 places the events and the books of the chapter on one axis.

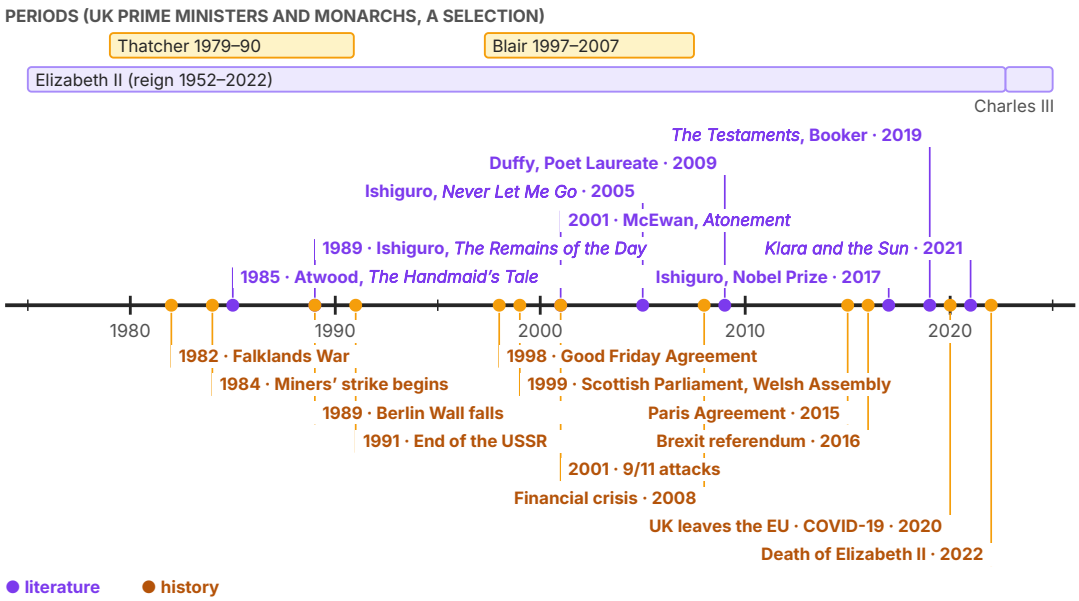


Figura 13.1 Britain and the world from 1979 to 2025, with the writers of this chapter, on a proportional time axis (1975–2025, ticks every 5 years). Violet: literature; amber: history. The bands at the top show two prime ministers and the two monarchs of the period.

13.1.1 Thatcher and the 1980s

In May 1979 the Conservative leader **Margaret Thatcher** became the first woman Prime Minister of the United Kingdom; she stayed in office until November 1990, longer than anyone else in the twentieth century. Britain in the 1970s had suffered high inflation and long strikes, and Thatcher promised to change the country's direction. Her governments sold state-owned companies to private shareholders — British Telecom in 1984, British Gas in 1986 — a policy called **privatisation** (*privatizzazione*). They reduced the power of the trade unions and cut taxes on income. In 1982, after Argentina invaded the Falkland Islands in the South Atlantic, Britain fought a short war to retake them, and the victory made Thatcher very popular.

The longest conflict was at home. In March 1984 many of Britain's coal miners went on strike against the closure of pits; the strike lasted a year and ended in defeat for the miners. For her supporters, Thatcher modernised a declining economy and gave people the freedom to own their homes and shares; for her critics, she destroyed industrial communities in the North of England, Scotland and Wales, and unemployment rose above three million in the early 1980s. Both views are still alive in British politics.

13.1.2 The end of the Cold War

Abroad, the 1980s ended with a change that few had expected. In the Soviet Union, Mikhail Gorbachev, leader from 1985, introduced reforms; in 1989 the communist regimes of Central and Eastern Europe fell one after another, and on 9 November 1989 the Berlin Wall was opened. Germany was reunited on 3 October 1990, and at the end of 1991 the Soviet Union itself was dissolved. The Cold War, which had divided the world since the late 1940s (chapter 10), was over. In the 1990s trade, money, people and information moved across borders faster than ever before, a process called **globalisation** (*globalizzazione*).

13.1.3 Devolution and peace in Northern Ireland

Tony Blair's Labour Party won the 1997 election, and Blair was Prime Minister until 2007. His governments gave Scotland and Wales their own elected bodies: after referendums in 1997, the Scottish Parliament and the Welsh Assembly (since 2020 the Senedd, or Welsh Parliament) were first elected in 1999. This transfer of powers from the central government to the nations of the UK is called **devolution** (*devoluzione*). The UK did not become a federation: Westminster can still make laws for the whole country. In a second referendum, in 2014, Scotland voted to stay in the UK by 55% to 45%.

In Northern Ireland, which you met in chapter 8, about 3,500 people had been killed in "the Troubles", the conflict that began at the end of the 1960s. On 10 April 1998 the British and Irish governments and most of the Northern Irish parties signed the **Good Friday Agreement** (also called the Belfast Agreement): power would be shared between unionists and nationalists, and the people of Northern Ireland could one day decide whether to stay in the UK or join the Republic. Voters in both parts of Ireland approved it in May 1998.

13.1.4 A new century of crises

On 11 September 2001 terrorists of the group al-Qaeda flew hijacked aircraft into the World Trade Center in New York and the Pentagon near Washington; nearly 3,000 people were killed. Britain joined the United States in the war in Afghanistan (from 2001) and in the invasion of Iraq (2003), which was opposed by one of the largest demonstrations in British history and is still debated today.

In 2008 a financial crisis that began in the American housing market spread around the world; on 15 September the bank Lehman Brothers collapsed, and the British government had to rescue several banks with public money. Years of slow growth and cuts in public spending followed. The UK had joined the European Economic Community in 1973. On 23 June 2016, in a **referendum** (*referendum*) — a vote in which all the electors decide one question directly — 51.9% of voters chose to leave the European Union, on a turnout of 72%. England and Wales voted Leave, Scotland and Northern Ireland Remain. After years of negotiation the UK left the EU on 31 January 2020: "Brexit", a word you will analyse in the Skills section.

A few weeks later the world changed again. A new coronavirus, first identified in China at the end of 2019, spread so widely that on 11 March 2020 the World Health Organization declared a **pandemic** (*pandemia*), an epidemic that crosses continents. The UK's first national lockdown began on 23 March 2020; schools and shops closed, and millions of people worked and studied online. In December 2020 Britain became the first country to approve the Pfizer–BioNTech vaccine and to start vaccinating with it.

13.1.5 A warming planet, a connected world

Two long processes cross all these events. The first is climate change. Gases such as carbon dioxide and methane let sunlight through but trap part of the heat that the Earth sends back into space; this is the **greenhouse effect** (*effetto serra*). Burning coal, oil and gas has increased these gases and warmed the planet. In the **Paris Agreement** of 12 December 2015 almost every country in the world agreed to keep the rise in global temperature "well below" 2 °C above pre-industrial levels and to try to limit it to 1.5 °C. Young people have been among the most active campaigners, as Callum's blog in the Skills section shows.

The second is the digital revolution. In March 1989 the British scientist Tim Berners-Lee, working at CERN in Geneva, proposed the system that became the World Wide Web. Smartphones (especially after the first iPhone, 2007) and social media put the internet in everyone's pocket and changed how news, rumours and lies travel. Since the end of 2022, artificial-intelligence programs that write and talk have become part of everyday life (the Connections section explains what they do). On 8 September 2022 Queen Elizabeth II died at Balmoral after seventy years on the throne, and her son became King Charles III; he was crowned on 6 May 2023.

DA RICORDARE

1979–2025 at a glance. Thatcher PM 1979–1990 (privatisation, miners' strike 1984–85) · Berlin Wall opened 9 Nov. 1989; USSR dissolved 1991 · Blair PM 1997–2007 · Good Friday Agreement 10 Apr. 1998 · devolution: Scottish Parliament and Welsh Assembly 1999 · 9/11: 2001 · financial crisis 2008 · Paris Agreement 12 Dec. 2015 · Brexit referendum 23 June 2016 (51.9% Leave) · UK leaves the EU 31 Jan. 2020 · COVID-19 pandemic declared 11 Mar. 2020 · Elizabeth II dies 8 Sept. 2022; Charles III.

ERRORE FREQUENTE

✗ *Con la devolution la Scozia è diventata indipendente.* ✓ La *devolution* (1999) ha dato alla Scozia un **parlamento** con poteri propri, ma la Scozia è rimasta nel Regno Unito; nel referendum del 2014 il 55% ha votato per restare.

✗ *Il Regno Unito è uscito dall'UE il giorno del referendum, nel 2016.* ✓ Il referendum è del **23 giugno 2016**; l'uscita effettiva è del **31 gennaio 2020**, dopo quasi quattro anni di negoziati.

✗ *Margaret Thatcher fu la prima donna capo di Stato britannico.* ✓ Fu la prima donna **Primo Ministro** (capo del governo); il capo dello Stato è il sovrano, e regine regnanti c'erano state già da secoli.

13.2 Literature: Postmodernism, Memory and Made Worlds

There is no single "movement" in recent fiction, and the writers of this section would reject any label. Some key ideas, though, help you to read them: the playful self-awareness of postmodernism, the narrator whose memory we cannot trust, and a new kind of fiction about the climate.

13.2.1 Postmodernism and metafiction

Postmodernism (*postmodernismo*) is the name critics give to a style of art and thought that became important from the 1960s. Modernism (chapter 9) had broken traditional forms in order to reach a deeper truth about the mind; postmodern writers doubt that any single, deeper truth can be reached. In 1979 the French philosopher Jean-François Lyotard described the postmodern attitude as a loss of faith in the great "narratives" that claimed to explain history as a whole, such as progress or revolution. Postmodern works therefore like irony, parody and play; they mix high and popular culture, borrow and recombine old styles, and often remind readers that what they are reading is made of words.

Fiction that draws attention to its own nature as fiction is called **metafiction** (*metanarrativa*, *metaromanzo*); the term is usually credited to the American writer William H. Gass (1970). The classic British example is John Fowles's *The French Lieutenant's Woman* (1969). It begins as a Victorian love story set in Lyme Regis in 1867: Charles Smithson, an amateur fossil-hunter, is engaged to the conventional Ernestina but fascinated by Sarah Woodruff, the outcast "French Lieutenant's Woman". Then, in chapter 13, the narrator steps out of the story and admits that he does not know who Sarah is, because he has invented her and his characters are disobeying him. Later he offers the reader more than one ending. A novel about the 1860s — the decade of Darwin and Mill (chapters 2 and 3) — thus becomes a novel about how we write the past.

13.2.2 Kazuo Ishiguro

Kazuo Ishiguro was born in Nagasaki in 1954 and moved to England with his family in 1960, when his father, an oceanographer, took a research post in Surrey. He writes in English and has lived in Britain ever since; he received the Nobel Prize in Literature in 2017. His narrators tell their own stories in calm, polite, careful voices, and slowly reveal what they have tried not to see. *The Remains of the Day* (1989; Booker Prize) is narrated by Stevens, an English butler who, on a motoring trip in 1956, remembers his years of loyal service to Lord Darlington, a nobleman who had supported appeasement with Nazi Germany in the 1930s. Stevens is an unreliable narrator (English 4 term): his dignity is also a way of hiding from his own mistakes, in politics and in love.

Never Let Me Go (2005), the first of this chapter's texts, moves from memory to science: its narrator, Kathy, was created to give her organs to others. *Klara and the Sun* (2021), the first novel Ishiguro published after the Nobel, turns the question round. Its narrator is an "Artificial Friend", a solar-powered robot chosen as a companion by Josie, a sick teenage girl, in an unnamed future America. Klara watches the humans around her with more patience and devotion than they show one another, and she treats the Sun, her source of energy, almost as a god. Both novels ask the same question — what makes us human, and what do we owe to the beings we make? — and the Connections section will put it to Homer.

13.2.3 Ian McEwan and Margaret Atwood

Ian McEwan (born 1948) began with short, disturbing stories in the 1970s and became one of the most widely read British novelists. *Atonement* (2001; the chapter's second text) starts in an English country house in the summer of 1935, follows the British army's retreat to Dunkirk in 1940, and ends in 1999 with a revelation that changes everything the reader has read. It combines the pleasures of a traditional realist novel with a metafictional twist.

The Canadian **Margaret Atwood** (born 1939) has written poetry, criticism and more than fifteen novels. *The Handmaid's Tale* (1985; third text) imagines a religious dictatorship, Gilead, in what was the United States; it continues the dystopian tradition of Huxley and Orwell (chapter 10), but tells it from the point of view of a woman whose body the state controls. Atwood prefers to call such books *speculative fiction*: they describe things that could happen, not impossible ones. Its sequel, *The Testaments* (2019), shared the Booker Prize with Bernardine Evaristo's *Girl, Woman, Other*; Evaristo was the first Black woman to win it.

13.2.4 Climate fiction and poetry today

The novel has been slow to deal with climate change: in *The Great Derangement* (2016) the Indian writer Amitav Ghosh argued that serious fiction had largely ignored the greatest crisis of its time. That has changed. **Climate fiction** (*narrativa climatica*; informally "cli-fi") is fiction in which climate change, its causes or its consequences are central to the story. It has ancestors —

J. G. Ballard's *The Drowned World* (1962) imagines a flooded, overheated London — and many forms: Atwood's *Oryx and Crake* (2003) is a dystopia of genetic engineering and ecological collapse, McEwan's *Solar* (2010) a comedy about a selfish physicist working on clean energy, Barbara Kingsolver's *Flight Behaviour* (2012) a realist novel about butterflies that change their migration, and Richard Powers's *The Overstory* (2018) a novel whose true heroes are trees.

Poetry has found new public roles too. **Carol Ann Duffy** (born 1955 in Glasgow) was Poet Laureate from 2009 to 2019, the first woman to hold the post since it was created in the seventeenth century; her collection *The World's Wife* (1999) gives voices to the wives of famous men from myth and history, a kind of rewriting you will study in chapter 14.

IN SINTESI

Author	Work	Date	Key idea
John Fowles	*The French Lieutenant's Woman*	1969	metafiction: the narrator admits he invented his characters
Margaret Atwood	*The Handmaid's Tale*	1985	dystopia from a woman's point of view; the "Historical Notes"
Kazuo Ishiguro	*The Remains of the Day*	1989	an unreliable narrator: dignity as self-deception
Ian McEwan	*Atonement*	2001	a novelist's guilt and a final twist
Kazuo Ishiguro	*Never Let Me Go*	2005	clones who accept their fate; euphemism
Kazuo Ishiguro	*Klara and the Sun*	2021	a robot narrator who observes human love
Amitav Ghosh	*The Great Derangement*	2016	essay: why fiction ignored climate change

ERRORE FREQUENTE

✗ *Il postmodernismo è tutta la letteratura scritta dopo il 1945.* ✓ È uno **stile** e un atteggiamento (ironia, gioco, parodia, sfiducia nelle «grandi narrazioni»), non un periodo: Ishiguro e McEwan scrivono dopo il 1945 ma usano anche forme realistiche.

✗ *In Never Let Me Go Kathy è un robot.* ✓ Kathy è un **clone**, un essere umano creato in laboratorio; il robot narratore è Klara, in *Klara and the Sun*.

✗ *La metanarrativa è un romanzo che parla di scrittori.* ✓ È una narrazione che **mostra di essere finzione** (il narratore commenta la propria storia, offre finali diversi); il protagonista non deve per forza essere uno scrittore.

13.3 Texts: Voices that Remember

The three novels of this section are protected by copyright, so each text is a **reading guide**: an original summary with at most two short quotations, followed by the analysis questions. If you can borrow the novels, read the passages the guides describe.

13.3.1 T1 · Reading guide · Kazuo Ishiguro, *Never Let Me Go*

Context. Published in 2005 and shortlisted for the Booker Prize; set in England in the late 1990s, in a world like ours except for one scientific difference.

The story

The novel opens with a simple introduction, "My name is Kathy H." (ch. 1). Kathy is thirty-one and has worked for over eleven years as a *carer*, looking after *donors*. Part One remembers her childhood at **Hailsham**, a boarding school where the pupils are encouraged to paint and write, and where a mysterious woman, Madame, takes the best pictures away for her *Gallery*. Kathy's closest friends are Ruth, clever and possessive, and Tommy, who loses his temper because he cannot draw.

In Part Two the friends, now sixteen, live in old farm cottages, and hear a rumour that a couple truly in love can ask for a *deferral*. Only slowly does the reader understand what Kathy has always known: the students are **clones**, created to give their vital organs, one operation after another. Sooner or later, often by the fourth donation, a donor "completes" (the word recurs throughout the novel). In Part Three Kathy cares for Ruth, and then for Tommy, who becomes her lover. They find Madame and their old head guardian, Miss Emily, and learn that deferrals never existed: the Gallery was meant to prove to a sceptical public that clones had souls. Tommy completes. At the end Kathy, soon to be a donor herself, stops her car by a field in Norfolk, allows herself one moment of fantasy — and drives on.

Analysis

Voice. Kathy speaks a calm, conversational English, full of hesitations and second thoughts, and addresses a "you" who seems to share her world. The reader is placed inside the system and discovers the horror late, as the students did.

Language. The world of the novel survives on **euphemism** (chapter 7): *donation* for the removal of organs, *complete* for die. The words are gentle and administrative — and that is what makes them terrible. Orwell's Newspeak (chapter 10) was imposed by force; here the victims themselves use the polite words.

Themes. Why do the students not run away? That question is the novel's real subject: how people accept the roles society gives them. Art, love and friendship were supposed to prove that the clones had souls; for the reader, they prove it without any Gallery.

1. What does Kathy tell us about herself at the start? Which important fact does she not say?
2. Find three euphemisms in the guide and give the plain word each one hides.
3. Why did Madame collect the students' art? Why is the answer so painful?
4. The narrator is a clone, but readers often say the novel is about everybody. In what sense? (60–80 words)

13.3.2 T2 · Reading guide · Ian McEwan, *Atonement*

Context. Published in 2001 and shortlisted for the Booker Prize; a realist novel with a short final section that changes how we read the rest.

The story

Part One takes place on one hot day in 1935 at the Tallis family's country house. Briony, thirteen, wants to be a writer. From a window she sees her sister Cecilia step into a fountain in front of Robbie Turner, the cleaner's son, whose Cambridge education the Tallis father has paid for; later she reads a rude letter Robbie sent Cecilia by mistake and surprises the two lovers in the library. That night her cousin Lola is attacked in the dark garden. Briony, sure of what she has "seen", accuses Robbie, and he goes to prison. The real attacker is a guest, Paul Marshall, who later marries Lola.

Part Two follows Robbie, now a soldier, in the retreat to Dunkirk in 1940; in **Part Three** Briony, a trainee nurse in wartime London, visits the lovers and promises to withdraw her false evidence. The last section is headed "London, 1999". Briony, seventy-seven and a famous novelist, reveals that she wrote the whole book we have just read. Robbie died of septicaemia at Dunkirk; Cecilia was killed months later in the Blitz. They never met again, and the reunion in Part Three is Briony's invention — a happy ending she gives them because life did not.

Analysis

Form and themes. Until the end *Atonement* looks like a traditional novel with an omniscient narrator (English 4 term); the last pages turn it into metafiction, because the "narrator" was a character all along. The title names the problem: *atonement* (*espiazione*) means making up for a wrong. Briony's crime was an act of imagination — she turned what she saw into a story with a villain — and her atonement is another. But can a novelist, who decides every outcome, atone to anyone? The dead cannot forgive her.

1. What does Briony see at the fountain, and how does she interpret it?
2. List three choices or mistakes that lead to Robbie's arrest.
3. What do we learn in "London, 1999"? Why is it a twist and not just a sad ending?
4. In what sense is Briony both guilty and generous at the end?

13.3.3 T3 · Reading guide · Margaret Atwood, *The Handmaid's Tale*

Context. Published in 1985; a dystopia (chapter 10) narrated in the present tense, followed by an academic frame set two centuries later.

The story

After a coup, the United States has become the **Republic of Gilead**, a dictatorship that claims to rule by the Bible. Many people have become infertile, so the few fertile women, the **Handmaids**, are assigned to powerful men, the Commanders, to bear their children. They wear red, may not read and lose their names: the narrator is Offred — "of Fred", her Commander's property. She remembers the time before: her husband, her daughter, her outspoken friend Moira. Small acts of rebellion keep her alive: a phrase in mock Latin scratched in her cupboard by the woman before her, secret games of Scrabble with the Commander, an affair with Nick, the driver. At the end a black van takes her away — to arrest or to rescue; she does not know, and neither do we.

Then come the **"Historical Notes"**: the transcript of a lecture at a conference on Gileadean Studies in 2195, long after Gilead has fallen. A male professor explains that her story was found on cassette tapes, jokes about the Handmaids, tries to identify the Commander, and refuses to judge Gilead. He ends with the routine words of a lecturer: "Are there any questions?" (Historical Notes).

Analysis

Form and themes. The Notes are a **frame** (English 3 term) placed at the end: they tell us that Gilead ended and Offred's voice survived, but also that those who study her may still not hear her. Atwood has said that she put nothing into Gilead that people had not already done somewhere in history. Gilead forbids women to read because words give power; the professor's last question turns to us, the readers.

1. What is Gilead, and why are the Handmaids so important to it?
2. Explain the narrator's name. What does it tell you about her position?
3. Who speaks in the Historical Notes, when and where? What is his attitude to Offred?
4. Compare Gilead with Orwell's Oceania (chapter 10): one similarity, one difference.

ESEMPIO SVOLTO

A PEE paragraph from reading guides. Question: *How do Ishiguro and McEwan make the reader rethink the story at the end?* Keep to what the guide says and never invent quotations.

- **Point.** Both novels hide the truth until late, so the ending makes us reread everything before it.
- **Evidence.** Kathy calls a donor's death "completing", and we learn only gradually what it means; Briony reveals in "London, 1999" that she wrote the novel and invented the lovers' reunion.
- **Explanation.** Ishiguro delays understanding through euphemism, McEwan through form. In both, the reader repeats the characters' experience — being told a comforting story — and then discovers its cost.

Notice the literary present for what happens in the novels (*Kathy calls*, *Briony reveals*), as in chapter 1.

13.4 Language: Describing Data and Trends

In the fifth year a non-language subject may be taught in English (CLIL), and in every subject you will meet graphs, tables and statistics. Describing them precisely is a skill of its own: the grammar is simple, but the choice of word must match the numbers exactly. This section gives you the tools; the Skills section uses them to write a **data commentary** (*commento di dati*), a short objective text that describes what a chart shows.

13.4.1 Verbs and nouns of change

A **trend** (*tendenza, andamento*) is the general direction in which something changes over time. Most trend words exist both as verbs and as nouns, so you can vary your sentences: *Emissions **fell** sharply* / *There was a sharp **fall** in emissions.* Figura 13.2 shows the six basic shapes, and Tabella 13.1 gives the forms.

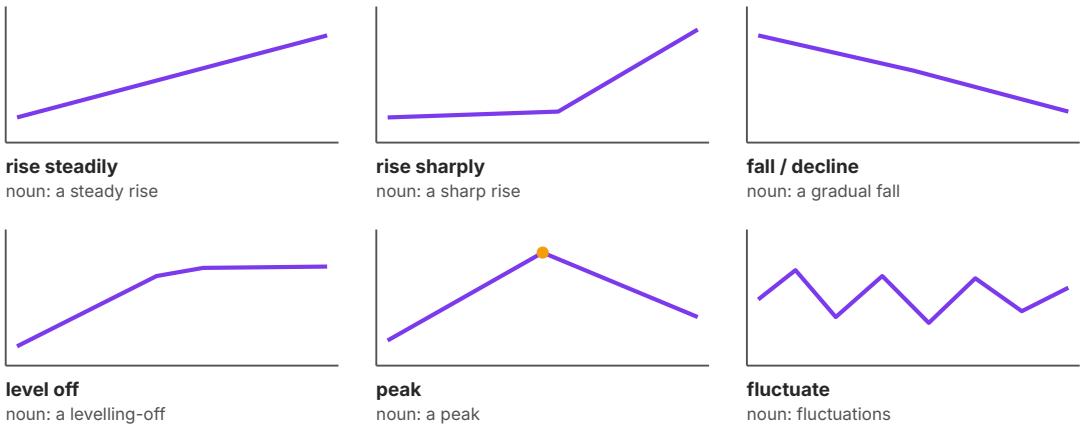


Figura 13.2 Six shapes of a trend, with the verb (bold) and the matching noun. A peak is the highest point (amber), after which the line falls.

Tabella 13.1 Verbs and nouns for describing trends

Meaning	Verbs (past forms)	Nouns	Example
go up	*rise* (rose, risen), *increase*, *grow* (grew, grown), *climb*	*a rise*, *an increase*, *growth*	CO_2 rose every year from 1959 to 2025.
go down	*fall* (fell, fallen), *decrease*, *decline*, *drop*	*a fall*, *a decrease*, *a decline*, *a drop*	In the UK, coal use declined after 1990.
stop changing	*level off*, *stabilise*, *remain stable*	*a levelling-off*, *stability*	Membership levelled off after 2020.
reach the top	*peak* (at), *reach a peak* (of)	*a peak*, *a high*	Growth peaked at 3.33 ppm in 2024.
go up and down	*fluctuate*	*fluctuations*	The yearly increase fluctuated widely.
multiply	*double*, *treble*, *halve*	—	The decade average almost trebled.

Two verbs need care. *Rise* is intransitive (*Prices rose*); *raise* is transitive and needs an object (*The government raised taxes*). The same is true of *fall* (intransitive) and *lower* or *reduce* (transitive). And *data*, a Latin plural (*datum*, "a thing given"), can take a plural verb (*the data show*, more formal) or a singular one (*the data shows*, common in everyday English): both are accepted, but choose one and keep it.

13.4.2 How much and how fast

Adverbs qualify the verb, adjectives the noun. Learn them in pairs and in order of size: *slightly / slight* (small) · *moderately / moderate* · *significantly / significant*, *considerably / considerable* (large) · *sharply / sharp*, *steeply / steep*, *dramatically / dramatic* (very large or fast). For speed and regularity: *gradually / gradual*, *steadily / steady*, *rapidly / rapid*. In a scientific text prefer the neutral words: *dramatically* sounds like a newspaper. And remember the transformation that makes a text fluent: *The number rose steadily → There was a steady rise in the number*.

13.4.3 Prepositions, numbers and approximation

Prepositions carry the arithmetic, so an error changes the facts:

- **to** + the final value: *The annual mean rose **to** 427.35 ppm in 2025.*
- **by** + the difference: *It rose **by** 111.37 ppm between 1959 and 2025.*
- **from … to …** + the start and end: *from 315.98 ppm in 1959 to 427.35 ppm in 2025.*
- **of** after a noun of change + the size: *a rise **of** about 35%.* — **in** after the noun + what changed: *a rise **in** CO_2.*
- **at** + a level: *Growth peaked **at** 3.33 ppm. It stood **at** 315.98 ppm in 1959.*
- **between … and …**, **over** + a period: *over the period, over sixty years.*

Exact numbers are not always helpful in a sentence. Approximate honestly: *about / around / roughly / approximately* (± a little), *just under / just over* (very close below or above), *nearly / almost* (below), *well over / well under* (by a clear margin). 1.97 is *just under two*; 2.56 is *just over two and a half*. Never round in the direction that suits your argument.

Percentages have a trap of their own. If a share rises from 20% to 25%, it rises by **five percentage points** (*punti percentuali*) — but by **25 per cent** of its starting value. Newspapers confuse the two; a good commentary never does.

13.4.4 Comparing and explaining

To compare, use the comparatives you know (English 3) and multiples: *CO_2 rose **faster** in the 2010s **than** in the 1960s*; *almost **three times as fast as***; ***whereas** the 1980s saw a rise, the 1990s saw a slight fall*. To explain causes, use the linkers of English 3 and 4 — *due to, as a result of, caused by, lead to, result in* — but in a pure data commentary describe first and explain only what the source states: a chart shows *what* happened, not always *why*.

GRAMMAR IN ITALIANO

Descrivere un grafico. In italiano diciamo «aumentare **di** 3 punti» e «aumentare **a** 40»; in inglese la differenza si esprime con **by** e il valore finale con **to**: *rise **by** 3 points*, *rise **to** 40*. Con un nome, la grandezza vuole **of** (*a rise of 3%*) e la cosa che cambia **in** (*a rise in prices*): ✗ *a rise of prices of 3%*.

Verbi. *Rise* (intransitivo: «salire») ≠ *raise* (transitivo: «alzare qualcosa»). *Fluctuate* = «oscillare», *level off* = «stabilizzarsi», *peak* = «toccare il massimo». Il passato: *rose, fell, grew*.

Confronto con l'italiano. L'italiano usa spesso il presente storico e il passato prossimo («nel 2024 la crescita tocca il massimo», «è aumentata»); in inglese, per un periodo concluso con date precise, si usa il **past simple** (*peaked in 2024*); il **present perfect** solo se il periodo arriva a oggi (*has risen since 1959*).

ERRORE FREQUENTE

✗ *Emissions raised in the 1990s.* ✓ *Emissions **rose** in the 1990s.* — *raise* vuole un complemento oggetto.

✗ *The average increased of 0.4 ppm.* ✓ *The average increased **by** 0.4 ppm.*

✗ *The share grew from 20% to 25%, an increase of 5%.* ✓ *…an increase of five **percentage points** (25%).*

✗ *CO_2 has reached 315.98 ppm in 1959.* ✓ *CO_2 **stood at** 315.98 ppm in 1959.* — con una data passata, **past simple**.

ESEMPIO SVOLTO

A graph commentary, step by step. Figura 13.3 shows how much the carbon dioxide at Mauna Loa increased each year, on average, in each decade since the 1960s.

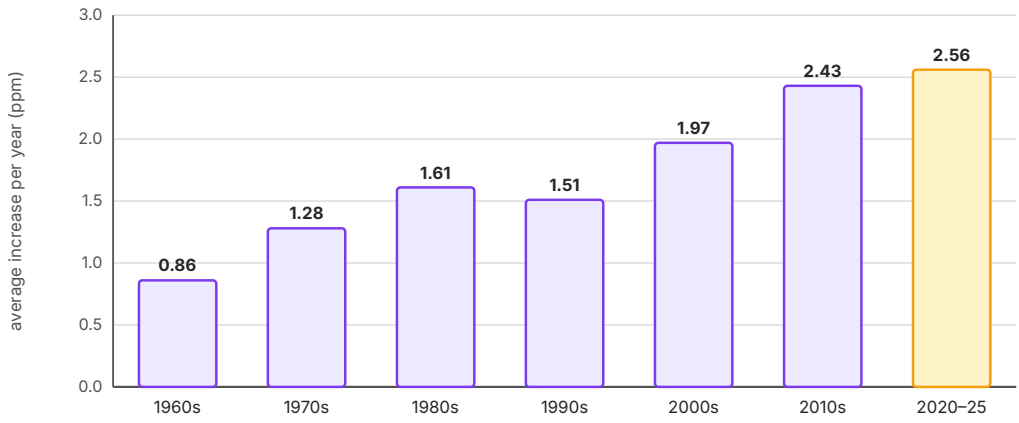


Figura 13.3 Average yearly increase in atmospheric CO_2 at Mauna Loa, Hawaii, by decade, in parts per million per year. Each bar is the mean of NOAA's annual growth rates for that decade, recomputed for this book; the last bar covers six years (2020–2025). Data: NOAA Global Monitoring Laboratory, file co2_gr_mlo, accessed October 2026.

1. **Identify the chart.** What is measured, in what unit, where, over what period, from which source? *The bar chart shows the average annual increase in atmospheric CO_2 at Mauna Loa, in parts per million per year, for each decade from the 1960s to the early 2020s, according to NOAA.*
2. **Give the overview** — the one thing a reader must remember. *Overall, the increase itself has grown: CO_2 is not only rising, it is rising faster.*
3. **Select the key features** with numbers. *The average rose from 0.86 ppm a year in the 1960s to 2.43 ppm in the 2010s, almost three times as fast, and reached 2.56 ppm in 2020–2025.*
4. **Note the exception.** *The only interruption came in the 1990s, when the average fell slightly, from 1.61 to 1.51 ppm.*
5. **Compare and limit.** *The last bar covers only six years, so it should be compared with caution.* Stop there: no opinion, no cause the chart does not show.

13.5 Skills: Interpreting Data, Writing a Data Commentary

13.5.1 Vocabulary: science, technology and the environment

Learn the words in Tabella 13.2 with their collocations; many come from Latin and Greek.

Tabella 13.2 Science, technology and the environment: key words

Word	Meaning	Typical collocations
algorithm (n.)	a set of steps a computer follows to solve a problem	a search algorithm; algorithms decide what we see
artificial intelligence (AI) (n.)	computer systems that do tasks once thought to need human intelligence	develop / regulate AI; AI-generated text
data (n. pl.)	facts and numbers collected for analysis	collect / analyse / share data; personal data
emissions (n. pl.)	gases sent into the air	carbon emissions; cut / reduce emissions
sustainable (adj.)	that can continue without damaging the environment	sustainable growth / transport / farming
renewable (adj., n.)	naturally replaced, such as wind or solar energy	renewable energy; switch to renewables
clone (n., v.)	a genetically identical copy of a living thing	clone a sheep; a human clone
ethics (n.)	the study of right and wrong; moral rules	medical ethics; raise ethical questions
privacy (n.)	the right to keep your personal life and data to yourself	invade / protect someone's privacy
misinformation (n.)	false information, spread by mistake or on purpose	spread / fight misinformation online

Word formation: blends, acronyms and conversion

English makes new words from old ones in a few regular ways (Figura 13.4). A **blend** (*parola macedonia*) fuses parts of two words: *smoke* + *fog* → *smog*, *breakfast* + *lunch* → *brunch*, *Britain* + *exit* → *Brexit*. An **acronym** (*acronimo*) is made of initial letters and is pronounced as a word: *NATO*, *laser*, *radar*. An **initialism** (*sigla*) is pronounced letter by letter: *NHS*, *BBC*, *EU*, *AI*. Finally, **conversion** (*conversione*) moves a word into a new word class without changing its form: the noun *text* becomes a verb (*I'll text you*), a company name becomes a verb (*to google something*).

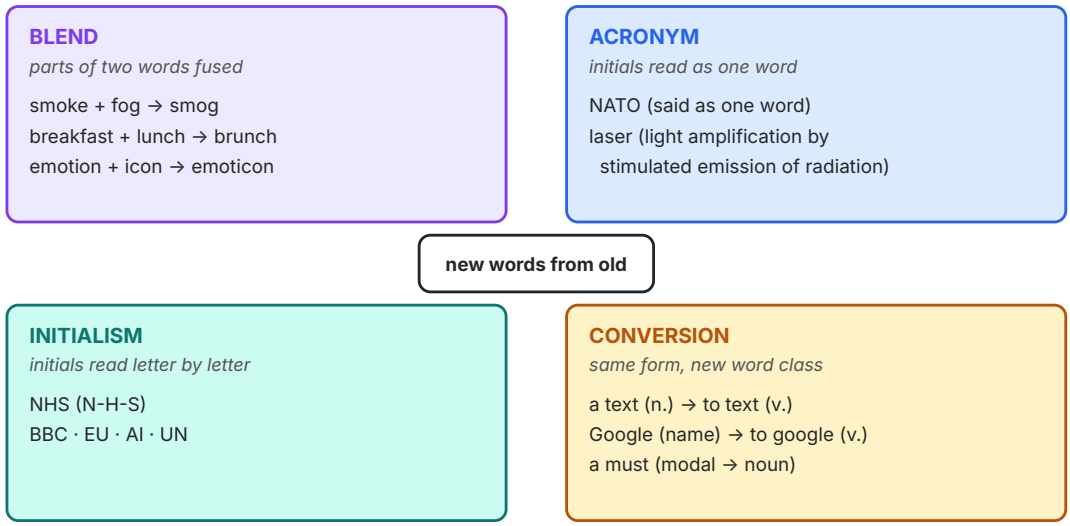


Figura 13.4 Four ways of making new words, with examples. Acronyms are said as words, initialisms letter by letter.

13.5.2 Reading: a geography student's blog

Before you read. Callum Reid, from Bristol, is in his first year of geography at university in Edinburgh. What do you expect a field trip to a glacier to involve?

Reading Callum Reid, “Ice, Placards and Some Very Honest Numbers” (blog post)

Reading week, they call it. In practice our department sent forty of us to the south coast of Iceland with waterproof trousers, notebooks and a GPS each. I thought I knew what a glacier looked like. I didn’t.

The glacier we visited is an “outlet glacier”: a tongue of ice that flows down from a much bigger ice cap. From the car park you walk for about twenty minutes over grey gravel and black sand before you even reach it, and that walk is the lesson. All that gravel was under the ice not very long ago. Along the path there are small posts with years painted on them, marking where the front of the ice was when someone measured it. The early posts are a long way back. The recent ones are close together, and then there is a gap, and then there is the ice, dirty, cracked and dripping.

Dr Moffat, our lecturer, made us stand at each post and estimate the distance to the next one with our GPS. “Write down what you measure, not what you feel,” she said. So I am not going to give you dramatic numbers here, because my notes from that afternoon are soaked and half illegible, and a number you cannot check is just a rumour with decimals. What I can tell you is what I saw: a lake of meltwater at the foot of the glacier that, according to the posts, was not there when my parents were my age. And I can tell you what I heard, which was the most surprising thing — the ice is never silent. It ticks, it groans, it drips.

Back in Edinburgh, two weeks later, I went on my first climate march. It was a cold Friday afternoon, and thousands of us, mostly students and school pupils, walked from the Meadows towards the Scottish Parliament. The placards were brilliant: penguins, melting ice creams, “There is no Planet B”. My favourite was carried by a girl of about eight: “I want to see a glacier too.”

One placard, though, bothered me. It showed a graph of a line shooting up like a rocket, with “CO_2!!!” written above it. No axis labels, no units, no source, no dates. After the field trip I couldn’t help it. I went home and looked up the real data — the Mauna Loa measurements that NOAA publishes for free. The real curve goes from about 316 parts per million in 1959 to more than 420 by the mid-2020s, and the line never once goes down from one year to the next. It doesn’t need exclamation marks. Exaggeration actually helps people who want to ignore the problem, because it gives them something to laugh at.

So here is my resolution for the year: march, yes, but carry a graph with axes. Dr Moffat would approve.

Comments

Giulia F. (Turin): Our school marched in the autumn too! Prof.ssa Rossi says we can use your graph idea for our CLIL module. Can you send me the link to the data?

Callum: Sent! Check the file date and the units before you use it. (Geography student. Now insufferable.)

After reading. a Why did Callum’s department organise the trip, and what did each student carry? b What do the painted posts show, and why is the walk to the glacier “the lesson”? c Why does Callum refuse to give numbers from his notes? d Which sense surprised him most at the glacier? e What was wrong with the placard he criticises, and why does he think exaggeration is harmful? f What is his “resolution”? Do you agree with it? **Exchange task.** Write a reply to Callum’s post (80–100 words) about a climate or environmental event in your town, asking him one question about his course.

13.5.3 Speaking: describing and interpreting data aloud

Aloud, the listener cannot see the numbers: guide their eyes, round the figures and repeat the main point.

Tabella 13.3 Useful language — describing and interpreting data orally

Function	Expressions
Introducing the chart	This chart shows… · What we're looking at here is… · The figures come from…
Guiding the eye	If you look at the left-hand side… · On the vertical axis we have… · Towards the end of the period…
Rounding aloud	roughly three hundred and sixteen parts per million · just over four hundred · nearly a third
The main point	The key thing to notice is… · What stands out is… · In a nutshell…
Interpreting carefully	This suggests that… · It seems likely that… · We can't tell from this chart whether…
Inviting questions	Does that make sense? · I'm happy to go through any of that again.

- **Task 1 (pairs).** Student A describes Figura 13.3 in one minute without showing it; Student B sketches the chart from the description. Compare the sketch with the original, then swap with Figura 13.5.
- **Task 2 (colloquio link).** Start from Figura 13.5 and speak for two minutes: describe the curve, then link it to one other subject — the carbon cycle and combustion in Scienze, or energy and heat in Fisica — and to a novel of this chapter or to Callum's blog.

13.5.4 Writing: a data commentary

A data commentary, the text type of reports and CLIL tasks, describes one chart objectively. The model comments on Figura 13.5.

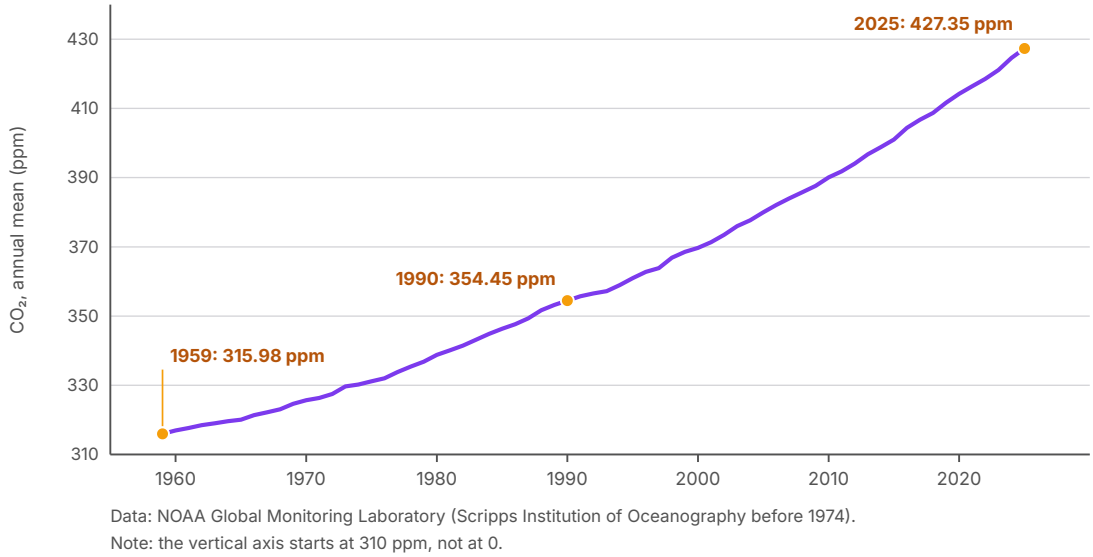


Figura 13.5 The Keeling curve: annual mean concentration of carbon dioxide (CO_2) in the atmosphere at Mauna Loa, Hawaii, 1959–2025, in parts per million (ppm). Data: NOAA Global Monitoring Laboratory, file co2_annmean_mlo (measurements by C. David Keeling of the Scripps Institution of Oceanography before 1974), accessed October 2026; values plotted as published. The vertical axis starts at 310 ppm.

Tabella 13.4 Model text — a data commentary on the Keeling curve (about 240 words)

Carbon dioxide at Mauna Loa, 1959–2025
The line graph shows the annual mean concentration of carbon dioxide in the atmosphere, measured in parts per million (ppm), at the Mauna Loa Observatory in Hawaii between 1959 and 2025. The data come from the US National Oceanic and Atmospheric Administration (NOAA).
Overall, the concentration rose every year throughout the period, and the rise became faster over time.
In 1959 the annual mean stood at 315.98 ppm. By 1990 it had increased to 354.45 ppm, a rise of 38.47 ppm in thirty-one years, or roughly 1.2 ppm a year. Over the following thirty-five years the increase was almost twice as large: the annual mean passed 400 ppm for the first time in 2015 (401.01 ppm) and reached 427.35 ppm in 2025. Between 1959 and 2025, therefore, the concentration grew by 111.37 ppm, or about 35%.
The curve never falls from one year to the next, but its slope is not constant: it is gentler in the 1960s and steeper after about 2000, which means that the yearly increase itself has grown.
Two limits of the graph should be noted. First, the vertical axis starts at 310 ppm, which makes the change look larger than it would on an axis starting at zero. Second, annual means hide the seasonal cycle: within each year the concentration rises and falls by several ppm. The graph alone does not show the causes of the trend.

- **Title and introduction**: what is measured, unit, place, period, source — paraphrased, not copied from the caption.

- **Overview**: one or two sentences with the main trend, and no numbers.
- **Details**: the key values, in chronological order, with *stood at*, *increased to*, *a rise of*, *passed*, *reached*; approximation (*roughly*, *almost twice*).
- **Comparison**: two periods compared (*thirty-one years* vs *thirty-five years*).
- **Limits**: what the chart cannot show — no personal opinion, no invented cause.

Checklist. ✓ source and unit named · ✓ overview before details · ✓ every number checked against the chart · ✓ *by* / *to* / *of* / *in* used correctly · ✓ past simple for dated past, present perfect only up to now · ✓ no opinion · ✓ 200–250 words.

Task. Write a data commentary (200–250 words) on Figura 13.3. Or, as a research task, download a chart or table from a reliable statistics office (ISTAT, the ONS, Eurostat) on a topic of your choice; note the source, the date and the unit before you start, and check one of its numbers against a second source.

LEARNING TO LEARN

Data literacy: read a chart before you believe it. In every subject — and in the colloquio, where a chart can be the starting material — ask four questions before you describe a graph:

- **Source.** Who collected the data, and who published the chart? Is there a date?
- **Axis.** What exactly is measured, in what unit? Does the vertical axis start at zero? If not, is it said?
- **Scale.** Are the steps regular? Is it a total, an average, a rate or a percentage?
- **What is missing.** Which years, places or groups are left out? What would change the picture?

Transfer. The same questions work on a table in your history book, on the statistics in an Italian newspaper and even on an ancient source: when Herodotus or Thucydides gives an army's size, ask who counted, and how. **Colloquio link:** the Keeling curve → Scienze (the carbon cycle) → Fisica (energy) → the climate fiction of the Literature section.

13.6 Connections: Made Beings, Exact Words and the Carbon Atom

13.6.1 Italian literature: Calvino's memos and Levi's elements

Italo Calvino (1923–1985) had been invited to give the Charles Eliot Norton Lectures at Harvard in 1985–86, a famous series of six talks on poetry. He wrote five of them — on lightness, quickness, exactitude, visibility and multiplicity — but died in September 1985, before leaving for America; the sixth was never written. The lectures were published in 1988 as *Lezioni americane*, with the subtitle *Sei proposte per il prossimo millennio* (in English, *Six Memos for the Next Millennium*). They are a writer's advice to the age you live in. "Lightness" opens with a myth from

Ovid that a classico student knows: Perseus, who can defeat Medusa only by looking at her reflection in his shield, never directly — for Calvino, an image of how literature faces the heaviness of the world. "Exactitude" attacks the vague, automatic language that he saw spreading through the media, and asks for words as precise as a scientist's measurements: the same lesson as this chapter's Language section.

Primo Levi (1919–1987), a chemist from Turin and a survivor of Auschwitz, joined the two cultures in *Il sistema periodico* (1975). Each of its twenty-one chapters is named after a chemical element and tells a story from Levi's life or his family's. The last, "Carbonio", follows a single carbon atom over millions of years: from a block of limestone into the air as carbon dioxide, into a leaf, into food, and finally into the writer's own brain, where it helps him to write the full stop at the end of the book. In 2006 the Royal Institution of Great Britain named *The Periodic Table* the best science book ever written. Read beside Figura 13.5, Levi's atom, while it travels as carbon dioxide, could be in one of the few hundred molecules in every million that the Keeling curve counts.

13.6.2 Classico: the first automata

In English 4 (chapter 14) you met the first made woman of Greek myth, Pandora, shaped from earth and water by the smith god Hephaestus. Homer gives Hephaestus other creations, and they are startlingly modern. In book XVIII of the *Iliad*, when Thetis comes to ask for new armour for Achilles, she finds the god building twenty tripods on golden wheels that can go by themselves — *αὐτόματοι* (*autómatoi*, "self-moving", XVIII.376), the word from which English takes *automaton* — to the gathering of the gods and back. Then Hephaestus limps out to greet her, helped by his servants:

> … ὑπὸ δ' ἀμφίπολοι ῥώοντο ἄνακτι
> χρύσειαι ζωῇσι νεήνισιν εἰοικυῖαι.
> τῇς ἐν μὲν νόος ἐστὶ μετὰ φρεσίν, ἐν δὲ καὶ αὐδὴ
> καὶ σθένος, ἀθανάτων δὲ θεῶν ἄπο ἔργα ἴσασιν.
>
> *(… hypò d' amphípoloi rhóonto ánakti / khrýseiai zōêisi neénisin eioikyîai. / têis en mèn nóos estì metà phresín, en dè kaì audḕ / kaì sthénos, athanátōn dè theôn ápo érga ísasin.)*
>
> Homer, *Iliad* XVIII.417–420 (Perseus Digital Library text)

… and handmaids hurried to support their lord, made of gold, like living young women. In them there is understanding in their minds, and in them voice and strength, and they have learned their crafts from the immortal gods. (Translation by the editors.)

The second made being comes from the poetry of the Hellenistic age, which you read in Greek this year. In book IV of the *Argonautica*, as Jason and the Argonauts sail home, a giant of bronze, Talos, throws rocks at their ship to keep them away from Crete. Apollonius describes him as the last of the race of bronze, given by Zeus to Europa as the island's guardian; another

version of the myth, recorded in the mythological handbook attributed to Apollodorus, says he was a gift of Hephaestus.

> … Εὐρώπῃ Κρονίδης νήσου πόρεν ἔμμεναι οὖρον,
> τρὶς περὶ χαλκείοις Κρήτην ποσὶ δινεύοντα.
> ἀλλ’ ἤτοι τὸ μὲν ἄλλο δέμας καὶ γυῖα τέτυκτο
> χάλκεος ἠδ’ ἄρρηκτος …
>
> *(… Eurṓpēi Kronídēs nḗsou póren émmenai oûron, / trìs perì khalkeíois Krḗtēn posì dineúonta. / all’ étoi tò mèn állo démas kaì guîa tétykto / khálkeos ēd’ árrhēktos …)*
>
> Apollonius Rhodius, *Argonautica* IV.1643–1646 (Perseus Digital Library text)

… the son of Cronos gave him to Europa to be the guardian of the island, striding round Crete three times on his feet of bronze. All the rest of his body and his limbs were made of bronze, unbreakable … (Translation by the editors.) All but one spot: under a sinew by his ankle runs a single vein, covered by a thin membrane, and Medea, with the evil eye and her spells, makes him graze it on a rock; the ichor flows out like molten lead, and Talos falls like a great pine cut by woodcutters.

Put these beings beside Ishiguro’s. The golden handmaids have mind, voice and strength — everything Klara has — and exist to serve; nobody in Homer asks whether they are happy. Talos is a guard with one fatal weakness, destroyed by a stronger magic; nobody mourns him. Ishiguro’s novels ask exactly the question the ancient poets leave out: if we make a being that can think, speak and love, as Klara can, or that is fully human, as Kathy is, what do we owe it? The comparison is ours, not Ishiguro’s; but a reader of Homer will notice that the question is as old as the first stories of made things.

COLLEGAMENTI

Scienze and Fisica: the Keeling curve. In March 1958 the American scientist Charles David Keeling began measuring carbon dioxide at an observatory on Mauna Loa, a volcano in Hawaii, at about 3,400 metres, far from factories and cities. The measurements have continued ever since; today they are published by NOAA, the US National Oceanic and Atmospheric Administration. A concentration in **parts per million** (*parti per milione*, ppm) counts how many molecules of CO_2 there are in every million molecules of dry air: 315.98 ppm in 1959, 427.35 ppm in 2025 (Figura 13.5). The graph is called the **Keeling curve** (*curva di Keeling*).

Within each year the monthly values rise and fall: in the northern spring and summer, plants absorb carbon dioxide by photosynthesis; in autumn and winter, decay and respiration release it. The annual means used in this book hide that cycle — a good example of what a chart can leave out.

COLLEGAMENTI

Computer science: what an AI language model does. A **large language model** (*modello linguistico di grandi dimensioni*) is a computer program trained on an enormous amount of text. During training it learns, as numbers, the patterns of the language: which words and pieces of words tend to follow which others, in which contexts. When you type a question, it produces an answer one small piece at a time, each time choosing a likely continuation of everything written so far.

Two consequences follow, without any hype. First, such a model can write fluent, well-organised English on almost any subject — useful for drafting, translating or explaining. Second, fluency is not knowledge: unless it is connected to reliable sources, it can produce false statements, invented quotations or wrong numbers in the same confident tone. That is why everything in this chapter — every date, every ppm value — has been checked against a source, and why your own work should be too. Whether such programs "understand" is still debated; Klara's readers are asking a version of the same question.

SINTESI

- Margaret Thatcher (PM 1979–1990), the first woman Prime Minister, privatised state industries and defeated the miners' strike (1984–85); she is still admired and criticised.
- The Berlin Wall was opened on 9 November 1989 and the Soviet Union dissolved in 1991: the Cold War ended and globalisation accelerated.
- Under Blair (1997–2007) devolution gave Scotland and Wales their own elected bodies (1999); the Good Friday Agreement (10 April 1998) brought power-sharing to Northern Ireland.
- The new century brought 9/11 (2001), the financial crisis (2008), the Brexit referendum (23 June 2016; the UK left the EU on 31 January 2020) and the COVID-19 pandemic (2020).
- Climate change (the Paris Agreement, 2015) and the digital revolution — the Web (1989), smartphones, social media, AI — cross the whole period; Elizabeth II died in 2022.
- Postmodernism distrusts single grand explanations and likes irony and play; metafiction, as in Fowles's *The French Lieutenant's Woman* (1969), shows that it is fiction.
- Kazuo Ishiguro (Nobel 2017) writes calm, self-deceiving narrators: *The Remains of the Day* (1989), *Never Let Me Go* (2005), *Klara and the Sun* (2021).
- McEwan's *Atonement* (2001) ends with a metafictional twist; Atwood's *The Handmaid's Tale* (1985) is a dystopia framed by "Historical Notes"; climate fiction puts climate change at the centre of the story.
- Describing data: *rise / fall / level off / peak / fluctuate* as verbs and nouns; *by* for the difference, *to* for the end point, *of* and *in* after nouns, *at* for a level; percentage points ≠ per cent.
- A data commentary identifies the chart, gives an overview, selects key figures, compares and states its limits — without opinions; read every chart for source, axis, scale and what is missing.
- Word formation: blends (*smog*), acronyms (*NATO*), initialisms (*NHS*) and conversion (*to text*).
- Connections: Calvino's *Lezioni americane* and Levi's *Il sistema periodico*; Homer's golden handmaids and Apollonius' Talos beside Ishiguro's made beings; the Keeling curve and how a language model works.

ESERCIZI

History and Literature

1. ● The Good Friday Agreement of 10 April 1998…
   - **A.** ended the Falklands War
   - **B.** set up power-sharing between unionists and nationalists in Northern Ireland
   - **C.** created the Scottish Parliament
   - **D.** took the United Kingdom into the European Economic Community

2. ● Which novel ends with “Historical Notes”, a lecture given in the year 2195?
   A. *Atonement*
   B. *Never Let Me Go*
   C. *The Handmaid’s Tale*
   D. *The Remains of the Day*

3. ● *Metafiction* is fiction that…
   A. is set in a possible future
   B. is written by a scientist
   C. retells a classical myth
   D. draws attention to its own nature as fiction

4. ● Who narrates *The Remains of the Day*?
   A. Stevens, a butler
   B. Lord Darlington
   C. Kathy H., a carer
   D. Klara, an Artificial Friend

5. ●● True or false? Correct the false statements. a Margaret Thatcher was the UK’s first woman Prime Minister. b Scotland became independent with devolution in 1999. c The UK left the EU on the day of the referendum, 23 June 2016. d The Paris Agreement aims to keep global warming well below 2 °C. e Kazuo Ishiguro was born in Tokyo and writes in Japanese. f *The Testaments* shared the 2019 Booker Prize.

6. ●● Match each author with a work and its date. Authors: a John Fowles b Margaret Atwood c Ian McEwan d Kazuo Ishiguro e Amitav Ghosh. Works: *Atonement* · *The Great Derangement* · *The French Lieutenant’s Woman* · *Klara and the Sun* · *The Handmaid’s Tale*. Dates: 1969 · 1985 · 2001 · 2016 · 2021.

7. ●● Complete the timeline with the year: a the Berlin Wall is opened · b the Good Friday Agreement · c the financial crisis (Lehman Brothers) · d the Paris Agreement · e the Brexit referendum · f the WHO declares a pandemic · g Elizabeth II dies. Then put the events of 2015–2022 in one sentence each.

8. ●●● Explain *postmodernism* and *climate fiction* in 50–80 words each, with one example of each.

Text Analysis

9. ● In *Never Let Me Go*, a donor who “completes”…
   A. finishes school at Hailsham
   B. dies after his or her last donation
   C. becomes a carer
   D. receives a deferral

10. ●● T1. Find four euphemisms used in the world of *Never Let Me Go* and give the plain meaning of each. Why does Ishiguro let his narrator use them without comment?

11. ●● T2. Paraphrase the revelation of "London, 1999" in three sentences, using the literary present.

12. ●●● T1–T2. Compare Kathy and Briony as narrators (60–80 words): who are they addressing, what do they hide or delay, and how far can we trust them?

13. ●● T3. What are the "Historical Notes"? Give two reasons why Atwood added them.

14. ●●● Write a PEE paragraph (80–100 words): *How does The Handmaid's Tale show that language is power?*

15. ●●● Colloquio link (60–80 words): from Klara or Kathy to Homer's golden handmaids and Apollonius' Talos. What does the modern novel ask that the ancient poems do not?

Language

16. ● Complete with *by, to, from, of, in, at, between*. a CO_2 rose _____ 315.98 ppm in 1959 _____ 427.35 ppm in 2025. b It rose _____ 111.37 ppm over the period. c That was a rise _____ about 35%. d There was a steady rise _____ the concentration. e Annual growth peaked _____ 3.33 ppm in 2024. f The decade average fell slightly _____ the 1990s. g _____ 1990 and 2025 the value rose by 72.90 ppm. h In 1990 it stood _____ 354.45 ppm.

17. ● Choose the correct sentence.
    - **A.** The temperature raised by two degrees.
    - **B.** The government rose the price of fuel.
    - **C.** Emissions have rose since 1990.
    - **D.** The government raised taxes, and prices rose.

18. ●● Rewrite with an adjective + noun. a The number of students rose sharply. b Sales fell slightly in 2020. c Prices increased steadily. d Membership declined gradually. e The figures fluctuated considerably.

19. ●● Correct the mistakes. a ✗ Emissions have raised since 1990. b ✗ There was an increase of the temperature. c ✗ The price rised by 3%. d ✗ CO_2 has passed 400 ppm in 2015. e ✗ The number increased of 10%. f ✗ A dramatical rise followed.

20. ●● Choose the expression that is true for the numbers. a 1.97 ppm a year is *just under / well over* two. b 2.56 is *just over / nearly* two and a half. c 72.90 ppm is *almost twice / more than three times* 38.47 ppm. d A rise of 35.2% is *about a third / about a half*. e 111.37 ppm is *well over / just under* a hundred.

21. ●●● Percent or percentage points? a A share rises from 40% to 50%. b A share falls from 12% to 9%. c A newspaper writes "unemployment rose by 2%" when it went from 8% to 10%. Correct it.

22. ●● Use Figura 13.3 to write one sentence for each prompt. a 1960s → 1970s (rise) b 1980s → 1990s (slight fall) c the 2000s (approximation) d the 2010s compared with the 1960s e the last bar (a limit).

23. ●●● Edit this sentence into one or two objective sentences for a data commentary, using Figura 13.5: *It is absolutely shocking that the CO_2, which is a gas, has gone up in a really massive way since the year of 1959, and I think it is clearly all the fault of cars.*

24. ●● Translate into English. a Tra il 1959 e il 2025 la concentrazione di CO_2 è aumentata di circa 111 ppm. b Nel 2024 la crescita annua ha toccato un picco di 3,33 ppm. c La quota di energia rinnovabile è passata dal 20% al 25%: un aumento di cinque punti percentuali.

Vocabulary

25. ● Complete with *algorithm, clone, emissions, ethics, misinformation, privacy, renewable, sustainable*. a Wind and solar are _____ sources of energy. b The app's _____ decides which videos you see next. c Countries agreed to cut carbon _____. d Kathy is a _____, not a robot. e Doctors study medical _____. f Posting a friend's photo without asking invades their _____. g False news spreads as _____. h A _____ city plans for future generations.

26. ●● Blend, acronym, initialism, conversion or clipping? smog · NHS · laser · to google · brunch · BBC · emoticon · to text · lab · radar · Brexit · EU.

27. ●● Match the verbs with the nouns to make collocations (some verbs fit more than one noun): *cut, protect, spread, collect, raise, switch to* + *emissions, privacy, misinformation, data, ethical questions, renewables*.

Writing and Speaking

28. ●●● Write a data commentary (200–250 words) on Figura 13.3, following the structure and the checklist of the Skills section.

29. ●● Speaking. Describe Figura 13.5 aloud in one minute for a listener who cannot see it, then interpret it carefully in one more sentence. Use the expressions of Tabella 13.3.

Towards the Exam

30. ●● Reading (multiple choice). Read Sam's post and choose A, B, C or D. *"For my seminar on Ishiguro I tried an experiment: I read* Never Let Me Go *with my phone switched off in a drawer. The first evening was strange. I kept reaching for my pocket, as if the book might have notifications. By the second evening I noticed something I had missed when I first read it at school: how often Kathy says that she is not sure she remembers correctly. On a screen I would have skimmed those phrases as filler. On paper they became the point — a woman holding on to memories that are all she owns. I won't pretend I've given up my phone. But for the next novel on the list, it's going back in the drawer."* a Why did Sam put his phone in a drawer? A his seminar tutor told him to B to test how he reads without it C because it was broken D to save the battery. b What happened on the first evening? A he finished the novel B he fell asleep C he kept wanting to check the phone D he took notes on the phone. c What did Sam notice for the first time? A Kathy's doubts about her own memory B a mistake in the plot C a new character D the date of the novel. d What does Sam decide? A to give up his phone completely B to read the next novel on a screen C to repeat the experiment with the next novel D to stop reading Ishiguro.

31. ●● Open cloze: one word in each gap. Kazuo Ishiguro was born in Nagasaki (1) _____ 1954 and moved to England (2) _____ his family in 1960. His narrators speak politely and calmly, but they slowly reveal what they have tried not (3) _____ see. In *Never Let Me Go* the students are clones, created (4) _____ give their organs. (5) _____ the novel was published in 2005, it is set in the 1990s. In 2017 Ishiguro was awarded the Nobel Prize, (6) _____ made him one of the best-known living writers in English.

32. ●●● Key-word transformations: complete the second sentence with 2–5 words, including the word in capitals. a Emissions rose sharply in 2021. RISE — There _____ in emissions in 2021. b The concentration was 316 ppm in 1959. STOOD — The concentration _____ 316 ppm in 1959. c Briony reveals the truth only in the last section. UNTIL — It is _____ section that Briony reveals the truth. d Although the model writes fluently, it can still be wrong. MUCH — _____ fluently, it can still be wrong. e People say that Talos guarded Crete. SAID — Talos _____ Crete.

33. ●●● Colloquio prompt. Material: *"In them there is understanding in their minds, and in them voice and strength" — Homer on the golden handmaids of Hephaestus (*Iliad *XVIII.419–420, translation by the editors).* Speak for three minutes: a explain the context of the line; b link it to one novel of this chapter; c link it to one other subject (Greek, philosophy, science); d answer the follow-up question "Should a made being have rights?"

PER APPROFONDIRE

- [BRA] M. Bradbury, *The Modern British Novel*: the final chapters, on British fiction from the 1970s to the end of the century (Fowles, Ishiguro, McEwan).
- [ABR] M. H. Abrams, G. G. Harpham, *A Glossary of Literary Terms*: the entries "postmodernism" and "utopias and dystopias".
- [NOR] S. Greenblatt (ed.), *The Norton Anthology of English Literature*, vol. F: the introduction to the twentieth and twenty-first centuries.
- [SWA] M. Swan, *Practical English Usage*: the entries on *rise* and *raise*, on numbers and on *data*.
- [CRY] D. Crystal, *English as a Global Language*: the chapter on the future of English, for new words and the language of technology.

Glossario del capitolo

Acronym
acronimo — a word formed from initial letters and pronounced as a word, e.g. NATO, laser.

Blend
parola macedonia — a word that fuses parts of two words, e.g. smog (smoke + fog).

Climate fiction
narrativa climatica ("cli-fi") — fiction in which climate change, its causes or its consequences are central.

Data commentary
commento di dati — a short objective text describing what a chart or table shows.

Devolution
devoluzione — the transfer of powers from the UK government to Scotland, Wales and Northern Ireland.

Globalisation
globalizzazione — the growing movement of goods, money, people and information across borders.

Greenhouse effect
effetto serra — the warming of the Earth caused by gases that trap part of the heat it radiates.

Initialism
sigla — an abbreviation pronounced letter by letter, e.g. NHS, BBC.

Keeling curve
curva di Keeling — the graph of atmospheric CO_2 measured at Mauna Loa since 1958.

Large language model
modello linguistico di grandi dimensioni — an AI program trained on huge amounts of text to produce likely continuations of it.

Metafiction
metanarrativa — fiction that draws attention to its own nature as fiction.

Pandemic
pandemia — an epidemic that spreads across countries and continents.

Parts per million (ppm)
parti per milione — a unit of concentration: molecules of a gas in every million molecules of air.

Percentage point
punto percentuale — the difference between two percentages (20% → 25% = 5 points).

Postmodernism
postmodernismo — a style and attitude (from the 1960s) of irony, play and distrust of single grand explanations.

Privatisation
privatizzazione — the sale of state-owned companies to private owners.

Referendum
referendum — a vote in which all the electors decide one question directly.

Trend
tendenza, andamento — the general direction in which something changes over time.

Soluzioni

1. B (power-sharing in Northern Ireland; the Scottish Parliament came with devolution in 1999, the EEC in 1973).

2. C (Atwood, 1985).

3. D (e.g. Fowles's narrator in *The French Lieutenant's Woman*, ch. 13, or Briony's revelation in *Atonement*).

4. A (Stevens, on a motoring trip in 1956).

5. a T. b F — devolution gave Scotland its own Parliament (1999), but it stayed in the UK; in 2014 it voted 55% to 45% to remain. c F — the referendum was on 23 June 2016; the UK left on 31 January 2020. d T (and to try to limit it to 1.5 °C). e F — he was born in Nagasaki (1954), moved to England in 1960 and writes in English. f T (with Bernardine Evaristo's *Girl, Woman, Other*).

6. a *The French Lieutenant's Woman*, 1969. b *The Handmaid's Tale*, 1985. c *Atonement*, 2001. d *Klara and the Sun*, 2021. e *The Great Derangement*, 2016.

7. a 1989 (9 November). b 1998 (10 April). c 2008 (15 September). d 2015 (12 December). e 2016 (23 June). f 2020 (11 March). g 2022 (8 September). Sentences: open; e.g. *In 2016 a narrow majority of voters (51.9%) chose to leave the EU.*

8. Traccia: **postmodernism** — a style and attitude (from the 1960s) that distrusts single, total explanations (Lyotard's "grand narratives"), and likes irony, parody, mixing high and popular culture and reminding the reader that a text is made; e.g. Fowles's *The French Lieutenant's Woman*. **Climate fiction** — fiction in which climate change, its causes or consequences are central; ancestors such as Ballard's *The Drowned World* (1962); examples: Atwood's *Oryx and Crake*, McEwan's *Solar*, Kingsolver's *Flight Behaviour*, Powers's *The Overstory*.

9. B (a euphemism for death).

10. *donor* (a clone whose organs are removed), *donation* (an operation removing organs), *carer* (a clone who looks after donors before becoming one), *complete* (die). Traccia: Kathy has grown up with these words and accepts them; by not commenting, Ishiguro makes the reader notice the gap between gentle words and terrible facts, and shows how language helps a society accept injustice.

11. Model: *In the last section Briony, now seventy-seven, reveals that she has written the whole novel. Robbie and Cecilia never meet again: he dies at Dunkirk and she is killed in the Blitz. Their reunion in Part Three is Briony's invention, a happy ending she gives them because life did not.*

12. Traccia: both are women looking back near the end of a life (Kathy at 31, before her donations; Briony at 77, before dementia). Kathy addresses a "you" who shares her world and delays the truth through euphemism; Briony hides her authorship behind an omniscient-seeming narrator. Kathy is honest within her limits; Briony is openly unreliable, since she admits inventing the reunion. Readings differ: some readers find Briony's confession honest, others self-serving.

13. The transcript of a lecture at a conference on Gileadean Studies in 2195, by a male professor who explains how the tapes were found and transcribed. Reasons: they tell us that Gilead fell and that Offred's story survived; they show that even scholars can treat her suffering with jokes and detachment (her voice is still not fully heard); the final question turns to the reader.

14. Model: *Atwood shows that whoever controls words controls people. In Gilead women are forbidden to read, and the narrator loses even her name: "Offred" makes her the property of her Commander. Her secret games of Scrabble and a mock-Latin phrase scratched in her cupboard therefore become acts of rebellion. By telling her story on tapes, she takes back the power of words — although the Historical Notes suggest that those who later interpret her still control how she is heard.*

15. Traccia: Homer's handmaids have mind, voice and strength and serve Hephaestus; Talos, the last of the race of bronze, guards Crete and is destroyed by Medea; neither text asks what they feel or are owed. Ishiguro gives the made being a voice of its own (Klara narrates; Kathy is fully human) and asks the ethical question: what do we owe beings we create? Link to Greek (Hellenistic poetry) and philosophy (ethics).

16. a from, to. b by. c of. d in. e at. f in. g Between. h at.

17. D (*raise* transitive + object; *rise* intransitive; past participle *risen*).

18. a There was a sharp rise in the number of students. b There was a slight fall in sales in 2020. c There was a steady increase in prices. d There was a gradual decline in membership. e There were considerable fluctuations in the figures.

19. a have **risen**. b an increase **in** the temperature. c **rose**. d CO_2 **passed** 400 ppm in 2015 (past simple with a past date). e increased **by** 10%. f A **dramatic** rise.

20. a just under. b just over. c almost twice (1.9 times). d about a third. e well over.

21. a +10 percentage points = +25%. b −3 percentage points = −25%. c It rose by two **percentage points**, i.e. by 25%.

22. Models: a The average rose from 0.86 to 1.28 ppm a year. b It fell slightly, from 1.61 to 1.51 ppm. c In the 2000s it was just under two ppm a year (1.97). d In the 2010s CO_2 grew almost three times as fast as in the 1960s (2.43 vs 0.86). e The last bar covers only six years, so it should be compared with caution.

23. Model: *Between 1959 and 2025 the annual mean concentration of CO_2 at Mauna Loa rose from 315.98 to 427.35 ppm, an increase of about 35%.* Removed: the opinion (*shocking, I think*), the empty words (*which is a gas, the year of*), the vague size (*really massive*) and a cause the chart does not show.

24. a Between 1959 and 2025 the concentration of CO_2 rose / increased by about 111 ppm. b In 2024 annual growth peaked at 3.33 ppm / reached a peak of 3.33 ppm. c The share of renewable energy rose from 20% to 25%: an increase of five percentage points. (Past simple: the periods are closed; decimal point, not comma.)

25. a renewable. b algorithm. c emissions. d clone. e ethics. f privacy. g misinformation. h sustainable.

26. Blends: smog, brunch, emoticon, Brexit. Acronyms: laser, radar. Initialisms: NHS, BBC, EU. Conversion: to google, to text. Clipping: lab.

27. cut emissions · protect privacy · spread misinformation · collect data · raise ethical questions · switch to renewables (also possible: protect data; with misinformation we also say *fight* or *tackle*).

28. Traccia: title; introduction (average yearly increase in CO_2 at Mauna Loa, ppm per year, by decade, 1960s–2025, NOAA); overview (the increase itself has grown); details (0.86 → 1.28 → 1.61; slight fall to 1.51 in the 1990s; 1.97, 2.43, 2.56); comparison (2010s almost three times the 1960s); limits (the last bar = six years; decade means hide year-to-year fluctuations, from 0.31 in 1964 to 3.33 in 2024). No opinion, no cause.

29. Model: *This line graph shows carbon dioxide in the air at Mauna Loa, in Hawaii, from 1959 to 2025; the figures come from NOAA. On the vertical axis we have parts per million, starting at 310, not zero. What stands out is that the line goes up every single year: from roughly three hundred and sixteen ppm to just over four hundred and twenty-seven. If you look at the right-hand side, the line gets steeper, so the rise is speeding up. This suggests that whatever is adding CO_2 has increased — but we can't tell the causes from this chart alone.*

30. a B. b C. c A. d C.

31. 1 in. 2 with. 3 to. 4 to. 5 Although / Though / While. 6 which.

32. a was a sharp rise. b stood at. c not until the last. d Much as the model writes (chapter 2). e is said to have guarded (English 3).

33. Model answer (outline): a Thetis visits Hephaestus to ask for armour for Achilles; the lame god is supported by golden handmaids that think, speak and work — with his self-moving tripods (*autómatoi*, XVIII.376), among the first automata in literature. b Ishiguro's Klara has the same gifts and serves

Josie; unlike Homer, the novel asks what she feels and is owed; Kathy in *Never Let Me Go* is fully human yet treated as a resource. c Greek: Talos in Apollonius, *Argonautica* IV; philosophy: Kant's idea of treating persons as ends, never only as means; science: what a language model does (it predicts text; it is not known to feel). d Open: e.g. "It depends on what it can experience — the novel shows that the question matters before we can answer it."