



Prépa *langues*

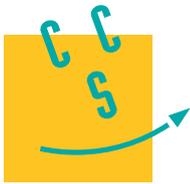
EUROSTAGES

ANNALES DES  
CONCOURS SCIENTIFIQUES

---

2023





CONCOURS CENTRALE-SUPÉLEC

# Anglais

## MP, MPI, PC, PSI

4 heures

Calculatrice interdite

# 2023

*L'usage de tout système électronique ou informatique est interdit dans cette épreuve.*

Rédiger en anglais et en 500 mots une synthèse des documents proposés, qui devra obligatoirement comporter un titre. Indiquer avec précision, à la fin du travail, le nombre de mots utilisés (titre inclus), un écart de 10% en plus ou en moins sera accepté.

Ce sujet comporte les 4 documents suivants :

- un extrait d'un article d'Elena BUNBURY publié sur le site de *The Adam Smith Institute* le 11 avril 2019 ;
- un extrait d'un article de Dannagal G. YOUNG publié par le *Center for Media & Social Impact*, le 22 février 2018 ;
- un extrait d'un article de Kliph NESTEROFF paru dans le *Los Angeles Times* le 15 octobre 2021 ;
- un dessin humoristique de Dave WHAMOND provenant de *Cagle Cartoons*, réalisé en 2019.

*L'ordre dans lequel se présentent les documents est arbitraire et ne revêt aucune signification particulière.*



ADAM SMITH  
INSTITUTE

## Free speech is more than just a laughing matter

By Elena BUNBURY, 11 April 2019

Free speech is under attack in Britain. The police are knocking on doors to tell people off for 'offensive' tweets. The Government is proposing a new regulator of online speech. Universities are no-platforming speakers that don't chime with student unions' narratives. Places of work are forcing employees to sign contracts that ban certain phrases and words.

This culture of censorship has even reached the industry designed to push the limits of acceptability: comedy. At a comedy night you may be picked out of the crowd and receive a joke at your expense, or you might be offended by one that touches a personal weak spot. But in the end, it's all in the name of having a good laugh. Comedy is supposed to be judged based on whether it is funny, not based on who it is offending.

This principle, however, is under dire threat from a new movement of 'woke' comedy. Woke comedians want to purge all potentially offensive material from comedians' content. Boundaries cannot be pushed. And why would they? What comedian would risk the collapse of their entire career as a result of one offensive joke?

In February, the ASI<sup>1</sup> hosted comedian and social commentator Andrew Doyle, who spoke out against this new culture. As a comedian, you learn quickly if a joke has gone too far. You will deliver the joke you have been practising and rehearsing in your set and if it doesn't go down well, no one will laugh, people

will look uncomfortable and you will learn not to say it again. Comedians are there to make people laugh. If that isn't happening, they're going to change their material. As such, material is designed to please the audience.

Andrew spoke about *Comedy Unleashed* — London's *Free-thinking Standup Comedy Club*, explaining the ethos that:

"If something is funny, it's funny. We shouldn't be afraid of exploring prejudices, contrarian views and hidden thoughts. If someone is gratuitous or nasty, people won't be amused. The audience is the ultimate judge."

This resonated with me and the other young politicians in the room. Comedy is becoming predictable and stale. The same jokes are made over and over [...]. Andrew spoke of something new, something fresh. Something that was so compelling, I left and immediately purchased a ticket for the next show.

I did not know what to expect when I travelled to the Backyard Comedy Club in Bethnal Green. I had been so brainwashed at university into thinking free speech was dangerous and something you needed to be protected from, that I was anxious at the thought of sitting there for hours of being offended. I went to the bar, bought a pint, took my seat in the second row, and waited for the show to start.

All of my worries disappeared within a few minutes of the host taking the stage. I have never laughed so much in my life.

Was some of the material controversial? Yes. Was it funny? Absolutely.

Afterwards I talked to Andy Shaw, a founder of *Comedy Unleashed* to find out more about what drove them to create a 'safe space' for comedians. Andy grew up with rebellious free-thinking comedians like Spike Milligan, Monty Python, Dawn French, and now he's watching comedy start to die.

[...]

Comedy had started to be seen as a negative experience, which is why Andy Shaw and Andrew Doyle decided to set up a club based on free thinking, expression and free speech. There is no need for self-censorship at *Comedy Unleashed*.

I asked Andy if he had one take home message to give to people who've never been to one of the events,

---

<sup>1</sup> ASI : Adam Smith Institute, a neoliberal think tank based in London.

<sup>2</sup> PC : political correctness

---

*Center for Media & Social Impact*<sup>3</sup>

## The Limits of Humor: When Comedians Get Serious

By Dannagal G. YOUNG, 22 February 2018

[...] While it is unsurprising that comedians get serious following tragedies, it is less clear why comedians would choose to drop humor in discussions of political issues.

Late-night comics don't drop their mask often. [...]

In September 2001, a week after the 9/11 terror attacks, late-night hosts returned with emotional opening monologues that sought to acknowledge the tragedy and galvanize the country. *The Daily Show's* Jon Stewart engaged in a tearful monologue about the resilience of New York City and its residents. [...]

Stewart's monologue that day would set the tone for how late-night comedy hosts would respond to tragedy — with increasing frequency — for years to come. Following terror attacks, mass shootings, and hate crimes, late-night hosts use their monologues to mourn and remind Americans "who we are."

[...]

In the aftermath of tragedy, dropping the mask and acknowledging our collective pain seems necessary. It helps situate the comedy as a respite from a cruel

but were considering it, he said: "If it's funny, it's funny. Every night is unpredictable, I don't even know what's going to happen anymore, and I organise it. It's free expression, and that's why we love it."

"The growing culture of censorship is a danger to a free and liberal society. In recent weeks we've seen the cancellation of a free speech society event at Bristol University and Jordan Peterson's fellowship at Cambridge University cancelled," the ASI's Matthew Lesh explains. "Freedom of speech is core to our humanity, to our capacity to think what we want and hear what we want. It's through the process of debate, hearing a wide diversity of ideas, that we are able to separate good ideas from bad ones in the eternal human mission towards progress."

*Comedy Unleashed* offers a new opportunity to spark debate, to question people on the material they say, and in this intense PC<sup>2</sup> climate, it gives people a chance to speak, without the fear of being locked up simply for a retweet.

chaotic world, without pretending that "everything is normal and fine." But what about those moments when comics have adopted this serious pleading tone *outside* of tragic events?

[...]

Why would late-night hosts, whose cultural capital stems from their comedic talents, avoid humor in the treatment of such important issues? After all, as scholars Edward and Lillian Bloom write, satire is intended to "plead with man for a return to his moral senses." So, why not use satire to make these pleas?

First, let it be said that comedians, as a rule, do not acknowledge the influence they may have on public opinion. And while I have found that frustrating over the years, I've come to believe that the reason they don't acknowledge it is because they actually don't believe that their jokes change people's minds. [...]

However, satire *can* create solidarity and mobilize people who are already "on the side of" the comic, moving them from beliefs to actions. Satire can also bring issues and themes to the mind of the public, helping to shape the kinds of things the public is thinking about.

Satire *can* also shape public opinion (and knowledge) on what we call “low salience” issues; issues with which the public is not especially familiar. Think, for example, of Colbert’s influence on public opinion and knowledge about Super PACs and the Citizens United Decision in 2011–12, or John Oliver’s impact on public opinion and familiarity with the net neutrality debate in 2014. Political humor is also good at bringing policies, events or topics to the top of people’s minds. [...]

So why not use humor to bring attention to issues about which these comics are particularly passionate? The obvious answer is that there is a novelty when comedians speak seriously. It violates expectations and gets our attention. But, it might also be a strategic choice stemming from their perceived limits of humor. And if anyone knows the limits of humor, it is the comics. First, comics probably know that the way audiences orient to humor dictates how much they are affected by it. Audience members who consider political satire to be a legitimate source of news/information (rather than just mere entertainment) allocate more cognitive resources to it, and since they’re

thinking harder about it, they learn more from it. Second, at a gut level, comics probably know that humor reduces our scrutiny of the arguments being advanced in a message. Because we dedicate mental energy to “getting the joke,” we have less energy left over to critique whether the argument being made in that joke is fair or accurate. Comics also probably know that when people enter the state of “play” when listening to a joke, they treat that message with different rules, and engage less carefully with its message arguments. This means audiences might be less resistant to an argument made in a joke. It also means they will not process that argument as critically.

[...]

Right now, progressive comics (and citizens) are finding their core beliefs, value systems, and social identities challenged every single day — by executive orders and legislative outcomes and even by the nature of political discourse. In such a climate, we shouldn’t be surprised when our comics, armed with political beliefs and a microphone, stop trying to be funny.

---

<sup>3</sup> The *Center for Media & Social Impact* (CMSI), based at American University’s School of Communication in Washington DC, is a creative innovation lab and research center.

---

## Los Angeles Times

### Op-Ed: ‘Cancel Culture’ has always been a problem for comedy

by Kliph NESTEROFF, October 15, 2021

Is freedom of speech evaporating from the world of comedy? We hear a familiar mantra whenever someone like Dave Chappelle comes under fire: You can’t joke about anything anymore. PC police. Cancel culture. People are too sensitive. But does this premise hold up to scrutiny? Studying history, it seems clear comedians have more freedom of speech today, not less.

At the start of the 20th century, ethnic minorities objected to the way they were portrayed onstage. Instead of airing grievances on the yet-to-be-invented internet, many delivered their objections in person.

Irish and Italian immigrants were vocal at the turn of the century. Vaudeville comic Walter Kelly received “a letter threatening his life if he did not immediately cut out several Italian stories in his act,” and an Irish betterment organization called the Clan na Gael pelted comedians with eggs for perceived slights against the Irish.

A newspaper editorial in Kansas feared this would inspire other groups to do the same: “If the well-known and almost indispensable Irish policeman is to be abolished from the stage by decree of the Clan na gael,

what is to hinder the ‘Afro-American’ societies from following suit and threatening dire consequences on the heads of players who represent the stage type of negro?”

That’s precisely what happened. African Americans, Native Americans and American Jews all staged protests in the early 20th century. In 1903, the Topeka Capital predicted the death of comedy: “The final upshot [of protest is] to strip comedy of its most engaging and popular features. If the raid should extend to all sorts of people caricatured in the theater and in print, then good-bye to comedy.”

Indeed, jokes concerning politics, religion and sex were taboo for most of the century. Even the most casual carnal reference could result in arrest. [...]

The debate concerning stereotypes was especially fierce when the television became a household appliance in the 1950s. TV executive Bob Wood explained why CBS and NBC were purging stereotypes from programming in 1956: “We deleted any material which we consider derogatory to any minority group — that’s on a common sense and public relations basis.”

The Wilmington Morning News sounded the death knell: “There isn’t much laughter any more — because there’s no way to speak in any light fashion about any group of people anywhere.”

[...]

Comedians resented interference — yet if it meant advancing their career, they went along with it. “The Tonight Show” was created in 1954 and became an important stand-up showcase. For seven decades, comedians have willingly eliminated the F-word without screaming about censorship or accusing hosts such as Johnny Carson of tyranny.

The obscenity laws used to prosecute Mae West and Lenny Bruce were deemed unconstitutional in the late 1960s, chipped away by the courts. Freedom of expression flourished as obscenity laws were overturned at the start of the ’70s.

[...]

In the same decade, Sears pulled its sponsorship of “Three’s Company” due to religious pressure, George Carlin was arrested after cussing and “Welcome Back, Kotter” was banned in Boston over fears it would trigger disorder. In the 1980s, comedy team Bowley and Wilson were arrested for flatulence humor. In the 1990s, Andrew Dice Clay canceled a show fearing he’d be arrested on an obscenity charge in Texas. All of this occurred long before the words and phrases “millennial”, “safe space” or “retweet” came along.

Comedians have far more freedom today. Subject matter involving sex, religion, politics or profanity does not result in jail time. The tug of war between censorship and free speech has been part of comedy for its entire existence. It is likely to continue.



Dave WHAMOND (Canada), *Cagle Cartoons*, 2019.

Printed after the *New York Times* decided to stop publishing cartoons in 2019.

**ECOLE POLYTECHNIQUE - ESPCI  
ECOLE NORMALES SUPERIEURES**

**CONCOURS D'ADMISSION 2023**

**MERCREDI 19 AVRIL 2023  
14h00 - 18h00  
FILIERES MP-MPI-PC-PSI  
Epreuve n° 6  
ANGLAIS (XEULSR)**

*Durée totale de l'épreuve écrite de langue vivante (A+B) : 4 heures*

*L'utilisation de dictionnaire et traductrice n'est pas autorisée pour cette épreuve.*

**PREMIÈRE PARTIE (A)  
SYNTHÈSE DE DOCUMENTS**

Contenu du dossier : trois articles et un document iconographique pour chaque langue. Les documents sont numérotés 1, 2, 3 et 4.

Sans paraphraser les documents proposés dans le dossier, le candidat réalisera une synthèse de celui-ci, en mettant clairement en valeur ses principaux enseignements et enjeux dans le contexte de l'aire géographique de la langue choisie, et en prenant soin de n'ajouter aucun commentaire personnel à sa composition.

La synthèse proposée devra comprendre entre 600 et 675 mots et sera rédigée intégralement dans la langue choisie. Elle sera en outre obligatoirement précédée d'un titre proposé par le candidat.

**SECONDE PARTIE (B)  
TEXTE D'OPINION**

En réagissant aux arguments exprimés dans cet éditorial (document numéroté 5), le candidat rédigera lui-même dans la langue choisie un texte d'opinion d'une longueur de 500 à 600 mots.

**PREMIÈRE PARTIE (A)**  
**SYNTHÈSE DE DOCUMENTS**

Texte 1

**She's Inheriting Millions. She Wants Her Wealth Taxed Away.**

*Marlene Engelhorn, 30, heir to a fortune, isn't interested in philanthropy, believing it only perpetuates existing power dynamics. She's calling for structural change to how the ultrarich are taxed.*

Emma Bubola, *New York Times*, 21 October 2022

By the time her extraordinarily wealthy grandmother died last month, Marlene Engelhorn already knew who she wanted to be the ultimate beneficiary of the enormous inheritance coming her way: the tax man.

Ms. Engelhorn, a 30-year-old who grew up in Vienna, is part of a growing movement of young, leftist millionaires who say they want governments to take a much larger share of their inherited wealth, arguing that these unearned fortunes should be democratically allocated by the state.

For more than a year, Ms. Engelhorn has been campaigning for tax policies that would redistribute her eight-figure windfall — and anyone else's.

Her family is no stranger to giving away huge sums. Her grandparents poured a chunk of their fortune into supporting young scientists. Her great-uncle gave millions to an archaeology center. His cousin pledged nearly \$140 million to classical music.

But in Ms. Engelhorn's view, it shouldn't be the wealthy who get to decide which personal interests and passions deserve their inherited millions.

Philanthropy to her only replicates the same power dynamics that have created the systemic inequalities she wants to see dismantled, with new tax policies for the super rich an essential aspect of that vision.

[...] Ms. Engelhorn last year co-founded Tax Me Now, described on its website as “an initiative of wealthy people who are actively committed to tax justice.” Its policy goal is to implement or to increase inheritance and wealth taxes (Austria, where Ms. Engelhorn lives, abolished its inheritance tax in 2008).

The number of nations in the Organization for Economic Cooperation and Development that taxed net wealth dropped from 12 in 1990 to five in 2020. While a higher number of O.E.C.D. countries tax inheritances, the amount collected accounts for 0.5 percent of all taxes there.

With less money held by the top 1 percent, Europe is less unequal than the United States. But in Europe, family fortunes and old money are more prevalent, with wealth, connections and even occupations passed down through generations. Over half of European billionaires

inherited their fortunes, while in the United States one-third did, according to a study by the Peterson Institute for International Economics.

To Ms. Engelhorn, the current tax laws mean that it isn't just huge amounts of wealth that are handed down; it's power, too, being distributed in a dynastic way. Taxing wealth, she said, would serve the dual purpose of increasing public resources and taking away political sway from people who have not democratically earned it.

"I don't think that I should be in power or in charge the way that I could be if I use my wealth accordingly," she said.

Ms. Engelhorn's multiple radio and TV appearances have resulted in dozens of people reaching out to ask her directly for financial help. She said it wrecks her to say no, but she believes it should not be on her to decide who gets her money.

She has committed to giving away at least 90 percent of her inheritance, and wants it to go to the state, but only in the form of a tax, not a donation. "A government who won't use wealth taxes won't get a gift just like that," she said.

Not all millionaires share her passion for taxing wealth.

Ansgar John Brenninkmeijer, heir to a fashion fortune, interrupted Ms. Engelhorn when she was onstage in Amsterdam to ask her angrily if she knew what the wealth tax in the Netherlands was.

"We do have a wealth tax," he said. "It's 1.6 percent," he added, referring to a Dutch tax on the value of a person's savings and investments.

To Ms. Engelhorn, that was a ridiculously low number. But later that day, she said it shouldn't be up to people like Mr. Brenninkmeijer — or herself — to say what's a fair rate.

"It's not a rich kid's place to say," she said, "what the tax should be."

## Texte 2

### **Patagonia's billionaire owner gives away company to fight climate crisis**

*Founder Yvon Chouinard announced that all the company's profits will go into saving the planet*

Erin McCormick, *The Guardian*, 15 September 2022

Setting a new example in environmental corporate leadership, the billionaire owner of Patagonia is giving the entire company away to fight the Earth's climate devastation, he announced on Wednesday.

Patagonia founder Yvon Chouinard, who turned his passion for rock climbing into one of the world's most successful sportswear brands, is giving the entire company to a uniquely structured trust and non-profit, designed to pump all of the company's profits into saving the planet.

"As of now, Earth is our only shareholder," the company announced. "ALL profits, in perpetuity, will go to our mission to 'save our home planet'."

Chouinard, 83, worked with his wife and two children as well as teams of company lawyers to create a structure that will allow Patagonia to continue to operate as a for-profit company whose proceeds will go to benefit environmental efforts.

"If we have any hope of a thriving planet – much less a thriving business – 50 years from now, it is going to take all of us doing what we can with the resources we have," said Chouinard in a statement. "This is another way we've found to do our part."

Chouinard's family donated 2% of all stock and all decision-making authority to a trust, which will oversee the company's mission and values. The other 98% of the company's stock will go to a non-profit called the Holdfast Collective, which "will use every dollar received to fight the environmental crisis, protect nature and biodiversity, and support thriving communities, as quickly as possible", according to the statement.

Each year, the money Patagonia makes after reinvesting in the business will be distributed to the non-profit to help fight the environmental crisis.

The structure, the statement said, was designed to avoid selling the company or taking it public, which could have meant a change in its values.

"Instead of 'going public', you could say we're 'going purpose'," said Chouinard. "Instead of extracting value from nature and transforming it into wealth for investors, we'll use the wealth Patagonia creates to protect the source of all wealth."

Patagonia's new direction is designed to set an example that disproves the old shareholder capitalism axiom that corporate goals other than profit will just confuse investors, wrote

Patagonia's board chair, Charles Conn, in an opinion piece in Fortune magazine on Wednesday.

"Instead of exploiting natural resources to make shareholder returns, we are turning shareholder capitalism on its head by making the Earth our only shareholder," he wrote.

Chouinard and Patagonia have long been groundbreakers in environmental activism and employee benefits. In its nearly 50 years in operation, the Ventura, California-based company has been known for extensive benefits for employees, including on-site nurseries and afternoons off on good surf days.

In the 80s, the company began donating 1% of its sales to environmental groups, a program formalized in 2001 as the "1% for the Planet Scheme". The program has resulted in \$140m in donations for preservation and restoration of the natural environment, according to the company.

Patagonia was one of the earliest companies to become a b-Corp, submitting to certification as meeting certain environmental and social standards, and recently it changed its mission to state: "We're in business to save our home planet."

Chouinard, the famously eccentric entrepreneur who started his business fashioning metal climbing pitons (or spikes to wedge into cracks while rock climbing) and lived out of his van at climbing destinations for many years, was horrified to be seen as a billionaire, he told the *New York Times*.

"I was in Forbes magazine listed as a billionaire, which really, really pissed me off," he said. "I don't have \$1bn in the bank. I don't drive Lexuses."

The Chouinard family are at the forefront of charitable giving, philanthropy and trust experts told the *New York Times*.

"This family is a way outlier when you consider that most billionaires give only a tiny fraction of their net worth away every year," David Callahan, founder of the website Inside Philanthropy, told the newspaper.

### Texte 3

#### **'I see this money as not mine': the people giving away fortunes from slavery and fossil fuels**

*What would you do if your inherited wealth was built on slavery, fossil fuels or came at the price of neglect? Meet the guilty rich who want nothing to do with their money*

Amelia Tait, *The Observer*, 5 June 2022

Morgan Curtis's life story is the American Dream in reverse. Her great, great, great grandfather was a banker in early 1800s New York. The family wealth grew as it passed through the generations, and Curtis's father added to the pile as a management consultant for "major" firms. Naturally, Curtis had a gilded childhood: educated in west London private schools; going on annual Swiss ski holidays; her own pony. But today, Curtis, now 30, lives on a farm in California with 40 other people. She lives on \$25,000 a year.

Curtis did not make bad investments, or lose the family money in Las Vegas. She has chosen to give up 100% of her inheritance and 50% of the income she earns as a coach, "redistributing" it to grassroots social movements, Black liberation organisations, indigenous land projects and climate justice groups.

This is because Curtis's banker ancestor didn't start with nothing – and Curtis is keenly aware that the American Dream for some means an American nightmare for others. Her great, great, great, great (that's an extra great) grandfather owned a cotton mill in New York that she says "can't be disconnected from plantation labour", while her grandmother's grandfather had an 11,000-acre sugar plantation in Cuba. "My ancestors made harmful and immoral choices, participating in slavery and colonisation," she says, "And so I see this money as not mine; as belonging to those communities who had their land and labour stolen from them."

We are at the beginning of a phenomenon nicknamed the Great Wealth Transfer. According to financial services group Sanlam, in the next decade, millennials will inherit £327bn from their parents. The trouble is, not everyone wants this money. A small but seemingly growing subset of young people feel guilt and shame about their inheritances – in response, some seek therapy, some seek drugs and others seek social change. [...]

The guilty rich are growing in number – or at least, more are speaking out. MacKenzie Scott, ex-wife of the world's second richest man, Jeff Bezos, has given \$12bn to non-profits in the past two years. "Like many, I watched the first half of 2020 with a mixture of heartbreak and horror," Scott wrote in a July blog post that year, adding that she hoped, "people troubled by recent events [would] make new connections between privileges they've enjoyed and benefits they've taken for granted." Abigail Disney – whose family needs no introduction – has said she opted out of being a billionaire, and would pass a global law banning private jets if she could.

Resource Generation is a community of the richest 18- to 35-year-olds in America who are "committed to the equitable distribution of wealth, land, and power." Founded in the 90s, the

organisation has seen rapid recent growth, ending 2021 with 65% more members than 2019. Last year, more than 800 members pledged to give \$100m to social justice movements. The organisation’s UK counterpart, Resource Justice, was established in 2018; one of its founders, Leonie Taylor, is a 31-year-old Londoner whose father made his millions in oil.

“There is genuine guilt that comes from really benefiting from a really unjust system,” Taylor says. “I don’t see that money as mine, I see it as belonging to the planet.” [...]

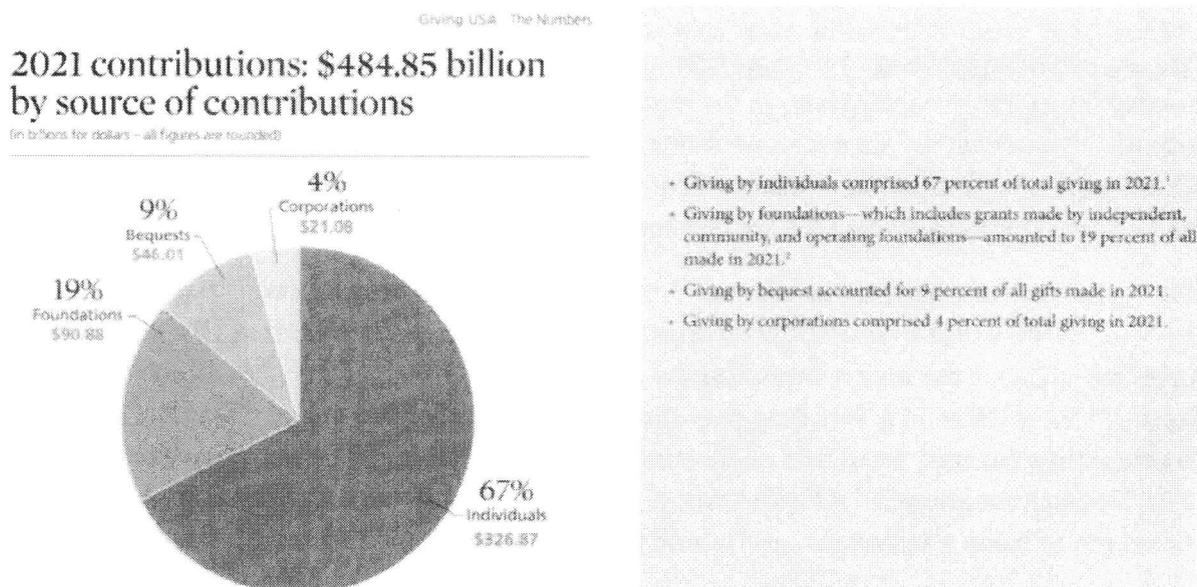
For Curtis and Taylor, guilt was a useful emotion that provoked action. But it doesn’t always work this way. Stephen is a millennial who inherited \$750,000 from a grandfather who worked in the pharmaceutical industry and property; the money has accumulated to \$2m since his grandfather died a decade ago.

“The main feeling of guilt is seeing other people really struggling and having to work full-time jobs,” Stephen – whose name has been changed – says. The inheritance meant he struggled to hold down a job and feel a sense of purpose, until he found work teaching English abroad.

Yet Stephen says guilt “doesn’t necessarily put me into action, like, ‘OK, I’ll donate a bunch of money’” – instead, it “gives me some motivation to work some more hours, because other people are also working.” He says seeing a therapist has improved his self-esteem, which in turn has changed his perspective. “It’s helped lower the feelings of guilt,” he says. “She’s really helped me feel as if I can choose the life I want and I don’t have to necessarily listen to the social pressure of using this money to further the good of everybody. I can really use it to help me achieve the things that I want to achieve.” [...]

Document 4:

**Money given to charities in the USA in 2021**



Giving USA Foundation / Lilly Family School of Philanthropy at Indiana University.

## SECONDE PARTIE (B) TEXTE D'OPINION

### **Patagonia's radical business move is great – but governments, not billionaires, should be saving the planet**

*We cannot simply stand back and hope that the elite will give away their wealth to tackle the climate emergency*

Carl Rhodes, *The Guardian*, 20 September 2022

Making bold statements about addressing the climate crisis has become de rigueur in the corporate world over the past few years. But this was taken to a whole new level when the founder and owner of the outdoor clothing company Patagonia, Yvon Chouinard, announced that his family was transferring 98% of the company's stock to a newly created not-for-profit organisation dedicated to combatting climate breakdown.

[...] Practically, Chouinard's plan means that each year about \$100m of non-reinvested profits will be given to the non-profit, called Holdfast Collective. Holdfast will own 98% of Patagonia, and all of it in non-voting stock. [...] Meanwhile, only 2% of the company, but all of the voting stock, goes to the Patagonia Purpose Trust. This is the organisation Patagonia says has been "created solely to protect our company's values and mission" of saving the planet. That means the trust has veto power over decisions such as the composition of the board of directors, its organisational structure and the company's operations.

[...] It would appear that, while Chouinard is giving away the ownership of his company, he is not giving up control. But is what he is doing qualitatively different from the actions of other philanthropic billionaires? These days [...] the global elite are queuing up to give away their fortunes to good causes. Just look at Bill Gates and Warren Buffett's Giving Pledge, where they and more than 200 other of the richest people around the world have committed to giving away most of their wealth to address problems facing society. Gates's own foundation shelled out a staggering \$6bn in grants and charitable contracts in 2021.

What makes Chouinard different is that, rather than making an abstract pledge, he has literally relinquished his assets. [...] That Chouinard and others contribute to addressing the climate crisis is undoubtedly a good thing; after all, governments worldwide have failed for decades. The rub, however, is that this is all part of a well-developed global system where responsibility for dealing with public and social problems is increasingly taken on by private interests. And, as we see with Chouinard, it is an empowered elite who are able to call the shots.

Rather than addressing the underlying political and economic system that creates inequality, billionaire philanthropy provides it with a moral justification. They may decide to give away their money, but it is still them making the decisions. [...] What exactly the Holdfast Collective will spend its \$100m a year on is as yet undisclosed. One key question, though, is whether it will be open to public scrutiny and accountability.

We live in an era in which business owners are taking over as society's moral arbiters, using their wealth to address what they see as society's greatest problems. Meanwhile, the wealth and number of the world's billionaires grows, and inequality stretches society to breaking point. [...] As a global society, we can't stand back and hope that future billionaires decide to give away their wealth in the service of the planet – there is far too little time left.



## Epreuve de Langue Vivante A

Durée 3 h

**Si, au cours de l'épreuve, un candidat repère ce qui lui semble être une erreur d'énoncé, d'une part il le signale au chef de salle, d'autre part il le signale sur sa copie et poursuit sa composition en indiquant les raisons des initiatives qu'il est amené à prendre.**

---

**Pour cette épreuve, l'usage de tout appareil électronique et dictionnaire est interdit.**

### CONSIGNES :

- Composer lisiblement sur les copies avec un stylo à bille à encre foncée : bleue ou noire.
- L'usage de stylo à friction, stylo plume, stylo feutre, liquide de correction et dérouleur de ruban correcteur est interdit.
- Remplir sur chaque copie en MAJUSCULES toutes vos informations d'identification : nom, prénom, numéro inscription, date de naissance, le libellé du concours, le libellé de l'épreuve et la session.
- Une feuille, dont l'entête n'a pas été intégralement renseigné, ne sera pas prise en compte.
- Il est interdit aux candidats de signer leur composition ou d'y mettre un signe quelconque pouvant indiquer sa provenance.
- Les candidats qui ne composeraient pas dans la langue choisie au moment de leur inscription se verront attribuer la note zéro.

Les différents sujets sous forme d'un fascicule sont présentés de la manière suivante :

Pages 2 à 7	Allemand
Pages 8 à 13	Anglais
Pages 14 à 19	Arabe
Pages 20 à 25	Espagnol
Pages 26 à 31	Italien

## ANGLAIS

En vous appuyant *uniquement* sur les documents du dossier thématique qui vous est proposé, vous rédigerez une synthèse répondant à la question suivante :

*To what extent are the Commonwealth Games thought to be still relevant nowadays?*

Votre synthèse comportera entre 450 et 500 mots et sera précédée d'un titre. Le nombre de mots rédigés (titre inclus) devra être indiqué à la fin de votre copie.

### Liste des documents :

1. Why the Commonwealth Games still matter, *The Conversation*
2. The Commonwealth Games: searching for relevancy, a host and a reason to exist, *The Guardian*
3. What is the point of the Commonwealth and does it really have a future?, news.com.au
4. Birmingham 2022: The Queen officially launches Baton Relay at Buckingham Palace, paralympic.org
5. The future of Commonwealth countries following the death of Queen Elizabeth II, adapted from aa.com.tr

## Document 1

### Why the Commonwealth Games still matter

Adapted from Nicole W. Forrester, *The Conversation*, 4 April 2018

Nicole Forrester is a member of the Athletes Commission for Commonwealth Games Federation, as well as the Athlete Representative and a Board of Directors member for Commonwealth Games Canada.

There was a buzz of excitement in the air for athletes, coaches and volunteers — and for me — when the 2018 Commonwealth Games started with spectacular opening ceremonies in Gold Coast, Australia. But despite the glitzy ceremony, the shine of the Commonwealth Games appears to have dulled.

There is declining media coverage for these Games, while a cultural shift has led many to question the merit of the Commonwealth.

Considering the waning interest, why do the Commonwealth Games still exist?

The Commonwealth is rooted in its historical past of sovereign and independent states that formally made up the British Empire and its traditional trade relations between member states.

What sets the Commonwealth apart from other assembled nations is that all members share a commitment to democracy, humanity and equality. Unlike the United Nations, all countries have an equal voice, no matter their size.

The Commonwealth Games celebrate this commonality every four years. In fact, the Commonwealth Sport Movement is an extension of the Games. Through the power of sports, there is continuous engagement with communities in between the Games years, embracing and celebrating diversity while promoting sport for development. Evolving with the times, the modern Commonwealth vision is “building peaceful, sustainable and prosperous communities globally, by inspiring Commonwealth Athletes to drive the impact and ambition of all Commonwealth Citizens through sport.”

A recent study exploring positive sports diplomacy found the Commonwealth Games effectively foster co-operation and friendship among member nations and territories, successfully achieving their objective.

The Commonwealth Games have a long history that dates back as far as 1891. An English minister, Rev. Astley Cooper, proposed that a Pan-Britannic-Pan-Anglican Contest and Festival should occur every four years as a means of “increasing the goodwill and good understanding of the British Empire.”

In 1930, the first Games took place in Hamilton, Ontario, with 400 athletes from 11 countries participating. Now the Commonwealth Games include athletes from 71 nations and territories, estimated to be approximately one third of the world’s population.

The 2018 Gold Coast Games will be the most inclusive international Games in history. These Games will be the first international Games to achieve gender equality, with the same number of medal events for women and men; the first international Games to have a reconciliation action plan, respecting and celebrating Aboriginal and Torres Strait Islander cultures<sup>1</sup>; and the largest integrated para-sport program in Commonwealth Games history.

The Games continue to exist because they are driven by shared values, offering excellence both on and off the field of play. For those reasons and more, the Commonwealth Games are still important.

<sup>1</sup> Aboriginals and Torres Strait Islander peoples are “Australia’s two distinct Indigenous cultural groups”. (*Encyclopædia Britannica*)

## Document 2

### **The Commonwealth Games: searching for relevancy, a host and a reason to exist**

Adapted from Andy Bull, *The Guardian*, 13 October 2021

It's nine months until the start of the XXII Commonwealth Games in Birmingham, which also means it's four years and nine months till the start of the XXIII Commonwealth Games in, well, nobody knows.

It's almost as if no one wants to publicly commit to spending millions to host Games memorably described by comedian John Oliver as "the historic display of a once-mighty nation gathering together the countries it lost and finding a way to lose to them once more".

They were supposed to be held in Hamilton, Canada, but that bid<sup>1</sup> faltered when it became clear the best part of \$150m (£110m) in public money was needed.

Kuala Lumpur, Cardiff, Calgary, Edmonton and Adelaide also pulled out because they were concerned about cost. All this after Durban<sup>2</sup>, which was supposed to host the 2022 Games, had them taken away again because they couldn't afford them. The Games were saved by the British government, which, in a timely bit of post-Brexit boosterism, decided to spend £594m to bring the Games here. Birmingham will cover the remaining £200m-odd of costs itself.

The problem goes beyond finding a country which would do likewise in four years' time. The Commonwealth Games Federation president, Dame Louise Martin, has said herself that the Commonwealth Games have been in an existential crisis for the last decade. "The Commonwealth Sport Movement reached a challenging chapter in its existence – when the very word and purpose of the 'Commonwealth' was questioned and the negative impacts of a Games on a host community were highlighted," she said in 2018.

There is a section on the Federation's own website called "Our Relevance", which has the unintended effect of making you wonder why they feel the need to explain it. It talks about the "unique connections and friendships", the "transformative and connecting power of sport", the "enduring commitment to human rights", and "shared values" of "Humanity, Equality, and Destiny". They are known as the "Friendly Games", after all. The website doesn't mention the fact that homosexuality is currently a criminal offence in 36 of the member countries, a situation which, like the Games themselves, is in large part the legacy of British colonial rule.

Martin has already said as much and that the Games have to "move on and modernise", and this week the CGF announced a "roadmap" showing how it is going to go about it. It is a genuinely radical plan, which speaks, in itself, to the severity of the problem.

Some of these are sensible changes, long overdue for a "mega-event" that feels, these days, like it's struggling to live up to the description. Others seem like genuine desperation about the future of Games that increasingly feel as though their time has passed.

<sup>1</sup> A bid: an offer to do something when you are competing with other people to do it

<sup>2</sup> Durban is a city in South Africa.

### Document 3

#### **What is the point of the Commonwealth and does it really have a future?**

Adapted from Victoria Crow, news.com.au, 20 April 2018

Everyone is thinking it, but no one is saying it. At the opening of the official Commonwealth Heads of Government meeting in London on Thursday, there is one question that needs to be asked.

What is the point of the Commonwealth?

Yes, it's a great chance for Australia and the UK to clean up the medal count at the Commonwealth Games without any competition from the rest of the world.

But with 53 countries covering 2.4 billion people spreading from Africa to the Caribbean and Pacific, what do we really have in common and is there any point to it at all?

The London event has been seized upon by the UK as a chance to pave the way for Prince Charles' inevitable ascension to the throne. Not to mention reinvigorating a trading network post-Brexit, thus proving to the 48 per cent of the country who voted to remain in the EU that leaving won't be a total disaster.

But with the incredibly disparate range of nations the Commonwealth covers, from genuine heavyweights like India and Canada to tiny island states like Tuvalu and Nauru, with hugely divergent views on everything from gay marriage to trade — does such a club based on nothing more than a shared colonial past really have a common vision for the future?

Critics question the relevance of the organisation in an era when many nations are considering whether they want to become republics. Some claim the vision is too wide-ranging to be really effective, while Afua Hirsch in *The Guardian* asked whether it's really just a second incarnation of the British Empire.

Comments from diving champion Tom Daley following his Gold Coast win highlighted disparate views after he pointed out "37 of the competing nations criminalise being LGBT+".

"I feel so lucky to be able to be openly who I am without worry. I hope one day every athlete from every nation in the Commonwealth will be free to compete openly as who they are too," he said.

At the opening of the summit, UK Prime Minister Theresa May highlighted a wish list for co-operation including everything from free trade to cyber security, preservation of the rules-based order, democracy and climate issues, neatly aligned with the UK's foreign policy priorities.

Perhaps most successful have been environmental initiatives, which directly impact many of the Oceanic member states. The UK has used the event to launch a ban on plastic drinking straws and a Queen's canopy of rainforests covering nations around the world.

At what many think could be the Queen's last CHOGM, the biggest clue as to her vision lies in her "sincere wish" that Prince Charles succeeds her.

Whether the organisation founded in 1949 still exists in another 70 years could entirely depend on him.

## Document 4

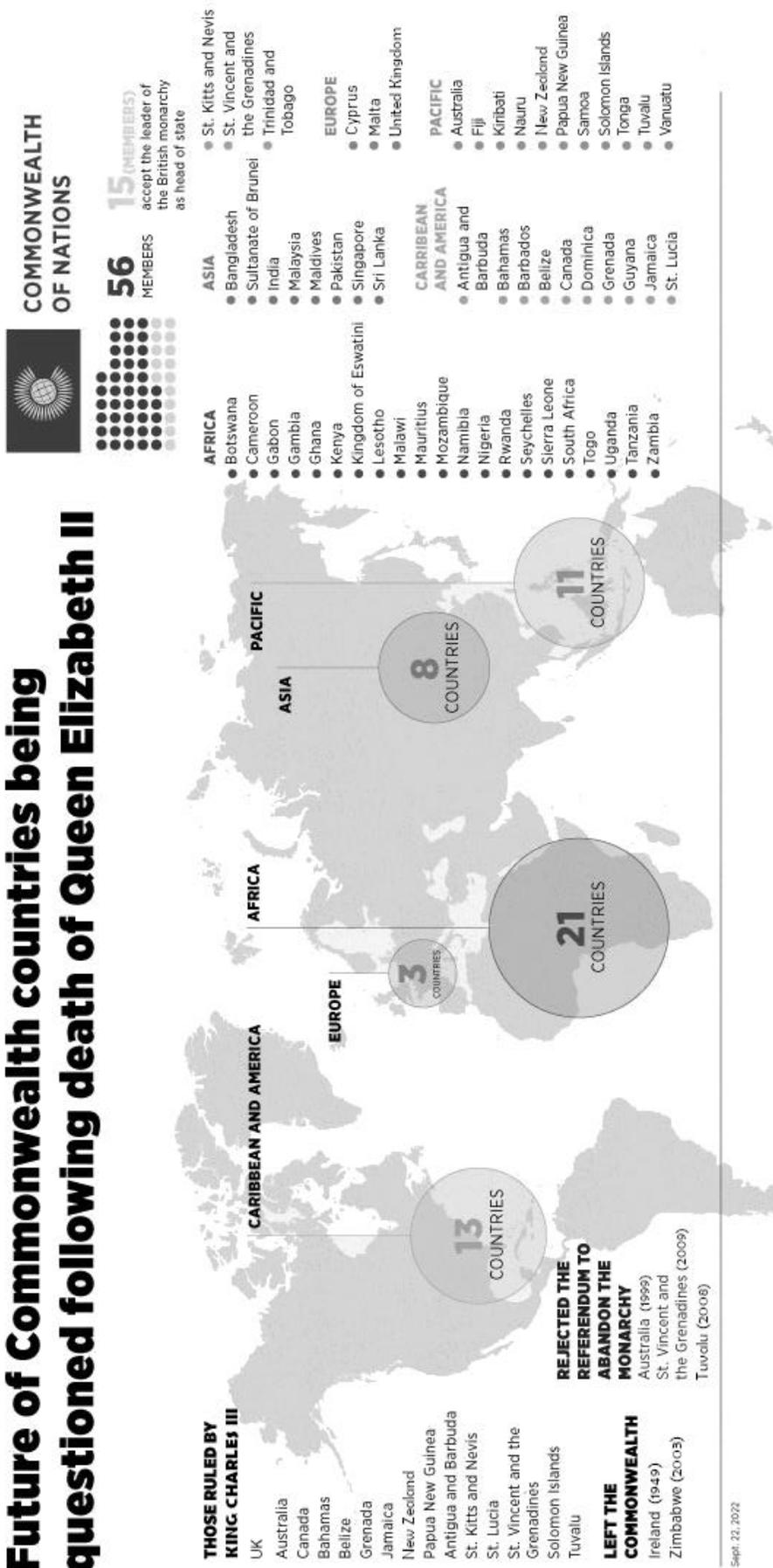


**Birmingham 2022: The Queen officially launches Baton Relay<sup>1</sup> at Buckingham Palace**  
paralympic.org/news/, 8 October 2021

*Dame Louise Martin; His Royal Highness Prince Edward, Earl of Wessex; and four-time Paralympic gold medallist Kadeena Cox receiving the Baton from Her Majesty the Queen in the ceremony at Buckingham Palace. Photograph by Alastair Grant*

<sup>1</sup>"The Queen's Baton Relay is a tradition that celebrates, connects and excites communities from across the Commonwealth during the build up to the Games. The Queen's Baton will now visit all 72 nations and territories of the Commonwealth for 294 days, covering 140,000 kilometres. The global journey will conclude at the Opening Ceremony of the Birmingham 2022 Commonwealth Games on 28 July 2022." (<https://www.birmingham2022.com/>)

# Future of Commonwealth countries being questioned following death of Queen Elizabeth II



The future of Commonwealth countries following the death of Queen Elizabeth II adapted from aa.com.tr, September 2022

**ÉPREUVE MUTUALISÉE AVEC E3A-POLYTECH**  
**ÉPREUVE COMMUNE - FILIÈRES MP - MPI - PC - PSI - TPC - TSI**

---

**LANGUE VIVANTE A**  
**ANGLAIS**

**Durée : 3 heures**

---

*N.B. : le candidat attachera la plus grande importance à la clarté, à la précision et à la concision de la rédaction. Si un candidat est amené à repérer ce qui peut lui sembler être une erreur d'énoncé, il le signalera sur sa copie et devra poursuivre sa composition en expliquant les raisons des initiatives qu'il a été amené à prendre.*

**RAPPEL DES CONSIGNES**

- Utiliser uniquement un stylo noir ou bleu foncé non effaçable pour la rédaction de votre composition ; d'autres couleurs, excepté le vert, peuvent être utilisées pour la mise en évidence des résultats.
- Ne pas utiliser de correcteur.
- Écrire le mot FIN à la fin de votre composition.

---

**L'usage d'un dictionnaire et de machines (traductrice, calculatrice, etc.) est strictement interdit.**

**Rédiger en anglais et en 400 mots une synthèse des documents proposés, qui devra obligatoirement comporter un titre.**

Vous indiquerez impérativement le nombre total de mots utilisés (titre inclus) et vous aurez soin d'en faciliter la vérification en mettant un trait vertical tous les vingt mots.

Des points de pénalité seront soustraits en cas de non-respect du nombre total de mots utilisés avec une tolérance de  $\pm 10\%$ .

Concernant la présentation du corpus dans l'introduction, vous n'indiquerez **que la source et la date de chaque document**. Vous pourrez ensuite, dans le corps de la synthèse, faire référence à ces documents par « doc.1 », « doc. 2 », etc.

Ce sujet comporte les 4 documents suivants qui sont d'égale importance :

- **document 1** - The Great Resignation (*score.org*, August 2021).
- **document 2** - How You Can Beat The Great Resignation And Retain Employees, Jason Richmond (extrait et adapté de *Forbes*, January 18, 2022).
- **document 3** - Where Did People From the Great Resignation Go? Back to Work, Emma Goldberg (extrait et adapté de *The New York Times*, May 13, 2022).
- **document 4** - The Cost of the Great Resignation (extrait et adapté de *superstaff.com*, February 18, 2022).

# THE GREAT RESIGNATION

## COVID19 and the Changing American Workforce

The massive migration from office to remote work during the pandemic has had a profound impact on how people think about their jobs. The result is a societal shift in what workers now consider the career status quo.

---

### 17.9 MILLION

The number of people that **QUIT THEIR JOBS** from January to May 2021

---

### WHY WORKERS ARE QUITTING

No childcare	Low wages
Fear of COVID19	Long commutes
Time with family	Inflexible hours
New career goals	Values changed

---

**%** of workers whose positions became remote all or most of the time because of COVID19 say that they...

<b>40%</b>	Have more flexibility to choose their work hours
<b>29%</b>	Can better balance work and family responsibilities
<b>19%</b>	Are more satisfied with their job

---

Resources  
<https://bit.ly/2TBBO4J>  
<https://bit.ly/3eTq0uj>  
<https://bit.ly/3i75hVW0>  
<https://pewrsr.ch/3iNjqlw>

### HOW WORKERS ARE EARNING

**SMALL BUSINESS START-UPS**  
 Applications in Millions
 

Year	Applications (Millions)
2017	3.19
2018	3.49
2019	3.5
2020	4.35

---

**1 TRILLION** The amount of money **57 MILLION GIG WORKERS** contribute to the economy annually

---

**20%** Worked from home before the pandemic.

**71%** Working from home during the pandemic.

**54%** Want to continue to work from home after the pandemic ends.

score.org, August 2021

## Document 2 - How You Can Beat The Great Resignation And Retain Employees

You've probably seen the headlines about the "Great Resignation" and the statistics that show record numbers of people quitting their jobs – according to some accounts more than four million workers per month are quitting. And there's no reason to believe that the numbers will get any better during 2022 since research by Gallup reveals a staggering 48% of workers are actively looking to make a change while McKinsey research puts the number at 58%. In that study, some 36% of American workers even said they left their job without a new one to go to. But what's really

<sup>1</sup> A gig worker : a person who works temporary jobs typically in the service sector as an independent contractor or freelancer

going on here, and what can you do about it? I prefer to think of the Great Resignation as being more of a “Great Reprioritization.” Others have called it a reshuffling, awakening or balancing. Whatever you want to call it, what it really comes down to is that the Covid-19 pandemic has spurred a seismic change in business mindset the likes of which we’ve never seen before.

The shake-up in working circumstances has led many to reevaluate what is truly important in their lives, and that often means ditching a work-centered life and a frustrating time-consuming daily commute. Opportunities abound. There are so many jobs available that many positions go unfilled for months. Employees can afford to be picky about when and where they work. Quitters today are winners not losers, which may have been the perception in years gone by.

We may look back on this time as a crucial inflection point in Americans’ attitude toward work with a reconsideration of the boundaries between boss and worker, family time and work time, home and office. It’s important therefore for leaders to gain an understanding of their workers’ life priorities and not just their work priorities. You have to appreciate their purpose as much as the corporate purpose. There needs to be an alignment between the two, and for leaders this entails having empathy, being authentic and listening to people so that your teams trust in you.

Not feeling valued or like they belonged were top factors cited in the McKinsey study for employees quitting. In other words, there was a lousy corporate culture. What is the best way to curb the tidal wave of attrition? I believe it is to make sure you have a happy and engaged workforce. Here are some important considerations to that aim.

**Pretend you’re recruiting them:** When you’re hiring talent, you strive to give a good impression to potential recruits. So why not do the same for your current employees? Don’t take them for granted.

**Recognize their contributions:** Be sure to acknowledge the part that your employees play. Note that this is not a one-time event. Take every opportunity you can to applaud their contributions – especially under stressful work conditions. It’s remarkable how many employees feel undervalued.

**Boost skills:** Looking for new talent? Look no further than your existing workforce. Never mind the cost savings by not having to replace them, you can improve your organization’s capabilities by reskilling and upskilling the people you already have. Acquiring new skills is also a motivating ego boost for the individual.

**Be flexible:** Flexibility is right at the top of many people’s priority list. Many workers have come to appreciate the ability to work from home and would prefer the option of continuing to do that – at least on a part-time basis. Parents, in particular, have been stressed by pandemic working conditions – not only enforced remote working but also handling childcare responsibilities at the same time. Caring for family, in fact, was a top five reason some parents left a job, according to McKinsey research, while for non-parents, it was 18 out of a list of 20 reasons.

Companies that have a rich, positive culture end up more resilient and not only do they survive but thrive as they face challenges like the pandemic. Companies that were agile reassured their employees and gave them confidence. An all-hands-on-deck crisis can bring out the best in people, leading to creativity and innovation.

Jason Richmond, *Forbes*, January 18, 2022

---

### Document 3 - Where Did People From the Great Resignation go? Back to Work

If Applebee’s were the solar system – and for nearly six years, to Nick Haner, it felt that way – the customer would have been the sun. Everything revolved around the customer. The customer was always right, he was told. But something happened, last year, to shift that orbit. It started with the signs that Mr. Haner saw popping up in windows as he drove to work: “Now hiring!” McDonald’s was hiring, Taco Bell closed early because it was short staffed. Everyone in Midland, Mich., it seemed, needed workers. So Mr. Haner began to wonder: Why shouldn’t work revolve around people like him?

“It’s absolute craziness,” said Mr. Haner, 32, who quit his job at Applebee’s last summer and accepted a fully remote position in sales at a tech company. “I decided to take a chance because I was like, ‘If it doesn’t work out, there’s 100 more jobs out there that I can find.’”

More than 40 million people left their jobs last year, many in retail and hospitality. It was called the Great Resignation, and then a rush of other names: the Great Renegotiation, the Great Reshuffle, the Great Rethink. But people weren't leaving work altogether. They still had to make money. Much of the pandemic stimulus aid stopped by the fall, and savings rates dropped to their lowest in nine years, 6.4 percent, by January. What workers realized, though, is that they could find better ways to earn a living. Higher pay. Stable hours. Flexibility. They expected more from their employers, and appeared to be getting it.

Across the country, workers were flush with opportunities and could rebuff what they'd once been forced to tolerate – whether rigid bosses or customer abuse. And to keep businesses running, bosses had to start listening. "People have seen this as a rejection of work, but I've seen it as people capitalizing on an abundance of job opportunities," said Nick Bunker, from Indeed's hiring lab. "People do need to pay the bills."

As vaccines and stimulus money rolled out last year, and state and local governments urged a return to normalcy, businesses grew desperate for workers. Workers took advantage of the moment by recalibrating what they expected from their employers. That didn't mean millions logging off forever and throwing their laptops into the sea. It meant low-wage workers hanging up their aprons and driving to another business with a "hiring" sign hanging on the door. It also meant white collar workers, buoyed by the tight labor market, telling their employers exactly how and where they want to work.

"Our employees have the power," said Tim Ryan, U.S. chair of PwC, which is in the midst of a three-year transition that allows for more flexible work, including allowing much of the work force to go permanently remote, a process that Mr. Ryan estimates to be a \$2.4 billion investment.

Many of last year's job quitters are actually job swappers, according to data from the Bureau of Labor Statistics and the census, which shows a nearly one-to-one correlation between the rate of quitting and swapping. Those job switchers have tended to be in leisure, hospitality and retail.

Emma Goldberg, *The New York Times*, May 13, 2022

---

## Document 4 - The Cost of the Great Resignation

Employee turnover is killing businesses in more ways than one. Although "The Great Resignation" isn't merely a pay issue, it has undoubtedly fueled wage increases. The stiff competition for attracting and retaining talents has pushed U.S. companies to outdo each other in offering sweeter deals – even for those who did not switch jobs. The biggest winners of the current labor climate are job switchers, with a 7.5% average wage growth increase. While corporate relocation may help businesses enlarge talent pipelines, it is also a costly and time-consuming endeavor. Moving 10,000 square feet of office space could range from \$5,000 to as high as \$30,000, depending on the number of employees and office furniture.

"The Great Resignation" is costing employers intangible losses that may be even harder to recover. Top executives are not immune to 2021's most significant blows to businesses. With droves of employees leaving their seats empty, C-level executives feel more pressured than ever. They, too, are joining "The Great Resignation." And since executive roles are, by nature, harder to fill, businesses are taking triple hits. Resignations among CEOs increased by 16% in the last quarter of 2021. CEOs of Twitter, Disney, Amazon, and American Airlines have earlier announced that they are vacating their seats this year.

In the current state of the labor market, employer branding is companies' most powerful arsenal. Unfortunately, employer branding is also the first and most affected by a high attrition rate. A high employee turnover rate reflects low employee engagement and morale. And when employees are dissatisfied, they are highly likely to resign – creating a negative cycle with the organization. Such a work environment will put the company in a more difficult position to attract and retain talents. Why? Because employees share experiences on numerous platforms.

*superstaff.com*, February 18, 2022

**FIN**

**ÉPREUVE MUTUALISÉE AVEC E3A-POLYTECH**  
**ÉPREUVE COMMUNE - FILIÈRES MP - MPI - PC - PSI - TPC - TSI**

---

**LANGUE VIVANTE B**  
**ANGLAIS - ESPAGNOL**

L'épreuve de langue vivante B est obligatoire pour Lorraine INP - EEIGM (filières MP, PC et PSI)

**Durée : 1 heure**

---

*N.B. : si un candidat croit repérer ce qui paraît être une erreur d'énoncé, il le signalera par écrit :*  
*- en cochant la case 40 A (1<sup>re</sup> ligne) ;*  
*- en expliquant au verso de la grille réponse les raisons des initiatives qu'il a été amené à prendre et poursuivra normalement son épreuve.*

---

**L'usage d'un dictionnaire et de machines (traductrice, calculatrice, etc.) est strictement interdit.**

## **INFORMATIONS GÉNÉRALES**

### **Définition et barème**

QCM en trois parties avec quatre propositions de réponse par item.

- |      |                           |                             |
|------|---------------------------|-----------------------------|
| I.   | Compréhension :           | 12 items (10 points sur 20) |
| II.  | Lexique :                 | 12 items (5 points sur 20)  |
| III. | Compétence grammaticale : | 15 items (5 points sur 20)  |

Réponse juste : + 3

Pas de réponse : 0

Réponse fausse ou réponses multiples : - 1

### **Instructions**

Lisez le texte et répondez ensuite aux questions.

Choisissez parmi les quatre propositions de réponse (A, B, C ou D) celle qui vous paraît la mieux adaptée. Il n'y a qu'une seule réponse possible pour chaque item.

Reportez votre choix sur la feuille de réponse.

### **Index " alphabétique "**

Anglais : pages 2 à 5

Espagnol : pages 6 à 9

## ANGLAIS

### Australian fires in 2019-2020 had even more global reach than previously thought

The severe, devastating wildfires that raged across southeastern Australia in late 2019 and early 2020 packed a powerful punch that extended far beyond the country, two new studies find. The blazes injected at least twice as much carbon dioxide into the atmosphere as was previously thought, one team's satellite-derived estimates revealed. The fires also sent up vast clouds of smoke and ash that wafted far to the east over the Southern Ocean, fertilizing the waters with nutrients and triggering widespread blooms of microscopic marine algae called phytoplankton, another team found. Both studies were published online September 15 in *Nature*.

Meteorologist Ivar van der Velde of the SRON Netherlands Institute for Space Research in Leiden and colleagues first examined carbon monoxide data collected over southeastern Australia by the satellite-based instrument TROPOMI from November 2019 to January 2020, during the worst of the fires. Then, to get new estimates of the carbon dioxide emissions attributable to the fires, the team used previously determined ratios of carbon monoxide to carbon dioxide emitted by the region's eucalyptus forests – the predominant type of forest that was scorched in the blazes – during earlier wildfires and prescribed burns.

Van der Velde's team estimates that the fires released from 517 trillion to 867 trillion grams of carbon dioxide to the atmosphere. "The sheer magnitude of CO<sub>2</sub> that was emitted to the atmosphere ... was much larger than what we initially thought it would be," Van der Velde says. The emissions "from this single event were significantly higher than what all Australians normally emit with the combustion of fossil fuels in an entire year." Previous assessments of CO<sub>2</sub> emissions from the fires, based on estimations of burned area and biomass consumed by the blazes, calculated an average of about 275 trillion grams. Using the satellite-derived carbon monoxide data, the researchers say, dramatically improves the ability to distinguish actual emissions from the fires from other background sources of the gases, giving a more accurate assessment.

That finding has worrisome implications. The fires swiftly cut a swath through southeastern Australia's eucalyptus forests, devastating the forests to a degree that made their rapid recovery more difficult – which in turn affects how much carbon the trees can sequester, van der Velde says. Fires in northern and central Australia's dry, grassy savannas are seen as more climate neutral because the grasses can regrow more quickly, he says. [...] The smoke and ash from the fires also packed a powerful punch. Scientists watched in awe as the fires created a "super outbreak" of towering thunderclouds from December 29 to December 31 in 2019. These clouds spewed tiny aerosol particles of ash and smoke high into the stratosphere.

Aerosols from the fires also traveled eastward through the lower atmosphere, ultimately reaching the Southern Ocean where they triggered blooms of phytoplankton in its iron-starved waters. Geochemist Weiyi Tang, now at Princeton University, and colleagues analyzed aerosols from the fires and found the particles to be rich in iron, an important nutrient for the algae. By tracing the atmospheric paths of the cloud of ash and smoke across the ocean, the team was able to link the observed blooms – huge patches of chlorophyll detected by satellite – to the fires.

Researchers have long thought that fires can trigger ocean blooms, particularly in the Southern Ocean, under the right conditions, says marine biogeochemist Joan Llorc, now at the Barcelona Supercomputing Center and a coauthor on the study. But this research marks the most direct observation ever made of such an event – in part because it was such a massive one, Llorc says.

Large ocean blooms are “yet another process which is potentially being modified by climate change,” says biogeochemist Nicolas Cassar of Duke University, also a coauthor on the study. One of the big questions to emerge from the study, Cassar adds, is just how much carbon these phytoplankton may have ultimately removed from the atmosphere as they bloomed.

50 Some of the carbon that the algae draw out of the air through photosynthesis sinks with them to the seafloor as they die. But some of it is quickly respired back to the atmosphere, muting any mitigating effect that the blooms might have on the wildfire emissions. To really assess what role the algae play, he says, would require a rapid-response team aboard an ocean vessel that could measure these chemical processes as they are happening. [...]

Adapted from *ScienceNews*, 15 September 2021

## I. COMPRÉHENSION

*Choisissez la réponse qui vous paraît la plus adéquate en fonction du sens du texte.*

- |  |   |
|--|---|
| <p><b>1.</b> From line 1 to line 8, it should be understood that:</p> <p>(A) There was twice as much CO<sub>2</sub> in the atmosphere as before.</p> <p>(B) The scientists didn't expect such an increase in CO<sub>2</sub>.</p> <p>(C) The scientists overestimated the CO<sub>2</sub> increase.</p> <p>(D) There was less CO<sub>2</sub> than in the past.</p> <p><b>2.</b> From line 1 to line 8, it should be understood that the fires:</p> <p>(A) caused the extinction of some species.</p> <p>(B) enriched the ocean water.</p> <p>(C) altered the color of algae.</p> <p>(D) reduced the size of algae.</p> <p><b>3.</b> From line 9 to line 15, it should be understood that the fires:</p> <p>(A) were much stronger before November 2019.</p> <p>(B) reached a peak in January 2020.</p> <p>(C) were more threatening in November 2019.</p> <p>(D) were intense between November 2019 and January 2020.</p> <p><b>4.</b> From line 9 to line 15, it should be understood that the region's eucalyptus forests:</p> <p>(A) were never touched by fires.</p> <p>(B) had been devastated by fires previously.</p> <p>(C) were the only ones to resist fire.</p> <p>(D) were of no help for the scientists' studies.</p> | <p><b>5.</b> From line 16 to line 25, it should be understood that:</p> <p>(A) Australia emits fewer emissions than other countries.</p> <p>(B) The 2019-2020 fires rejected 517 trillion grams of CO<sub>2</sub> into the atmosphere.</p> <p>(C) Around 275 trillion grams of CO<sub>2</sub> were released during the fires.</p> <p>(D) The use of a satellite increased the estimate accuracy.</p> <p><b>6.</b> From line 26 to line 33, it should be understood that:</p> <p>(A) More long-term damage was caused in northern Australia than in other regions.</p> <p>(B) Eucalyptus forests are more fragile than savannas.</p> <p>(C) Grassy regions were left untouched by the fires.</p> <p>(D) Trees recover much faster than grass.</p> <p><b>7.</b> From line 26 to line 33, it should be understood that late in December 2019:</p> <p>(A) Big clouds were formed in the sky.</p> <p>(B) The CO<sub>2</sub> emissions vanished for a while.</p> <p>(C) Ash particles were spread on the soil only.</p> <p>(D) Little smoke was seen in the air.</p> <p><b>8.</b> From line 34 to line 40, it should be understood that aerosol particles:</p> <p>(A) traveled from the Southern Ocean to the North.</p> <p>(B) were iron-free.</p> <p>(C) quickly reached the Western region.</p> <p>(D) gave birth to phytoplankton in the water.</p> |
|--|---|

9. From line 34 to line 40, it should be understood that algae:
- (A) need iron to survive.
  - (B) release a lot of iron.
  - (C) can prevent the fire from spreading.
  - (D) feed solely on iron.
10. From line 41 to line 45, it should be understood that scientists ... how much CO<sub>2</sub> has been absorbed by phytoplankton.
- (A) know exactly
  - (B) don't care about
  - (C) still wonder
  - (D) are about to find out

11. From line 46 to line 54, it should be understood that when algae die:
- (A) all the carbon they have absorbed falls to the sea floor.
  - (B) they attract even more CO<sub>2</sub>.
  - (C) they continue taking in CO<sub>2</sub> for a while.
  - (D) some of the absorbed carbon goes back into the air.
12. From line 46 to line 54, it should be understood that to study the algae-based CO<sub>2</sub> capture process, scientists:
- (A) will use a big recipient.
  - (B) will need to go to the ocean.
  - (C) will have to collect a lot of money.
  - (D) will have to recruit a very large team of specialists.

## II. LEXIQUE

*Choisissez la réponse qui vous paraît la plus appropriée en fonction du contexte.*

13. wafted (line 5) means:

- (A) changed
- (B) increased
- (C) stopped
- (D) floated

14. scorched (line 15) means:

- (A) touched
- (B) burnt
- (C) taken
- (D) forgotten

15. sheer (line 17) means:

- (A) impressive
- (B) only
- (C) approximate
- (D) low

16. accurate (line 24) means:

- (A) logical
- (B) intensive
- (C) precise
- (D) understandable

17. worrisome (line 26) means:

- (A) obvious
- (B) amazing
- (C) large
- (D) alarming

18. swiftly (line 26) means:

- (A) immensely
- (B) rapidly
- (C) systematically
- (D) consequently

19. swath (line 26) means:

- (A) strip
- (B) circle
- (C) square
- (D) box

20. in awe (line 31) means:

- (A) stupefied
- (B) calmly
- (C) nervously
- (D) suddenly

21. spewed (line 33) means:

- (A) took
- (B) hid
- (C) removed
- (D) emitted

22. triggered (line 35) means:

- (A) killed
- (B) lifted
- (C) caused
- (D) fought

23. iron-starved (line 35) means:

- (A) iron-poor
- (B) full of iron
- (C) polluted with iron
- (D) rejecting iron

24. muting (line 51) means:

- (A) imitating
- (B) reinforcing
- (C) leading
- (D) preventing

### III. COMPÉTENCE GRAMMATICALE

*Choisissez la réponse adéquate.*

25. .... specialists deny global warming.  
(A) A great many  
(B) Many a  
(C) Great many  
(D) Great a many
26. Phytoplankton provide food for .... sea creatures.  
(A) wide range of  
(B) wide range  
(C) a wide range of  
(D) a wide range
27. They will need .... money to carry out the research.  
(A) a lot  
(B) lot  
(C) a lot of  
(D) lots
28. .... they try, .... desperate they feel.  
(A) More / more  
(B) More / the more  
(C) The more / more  
(D) The more / the more
29. You .... believe them.  
(A) would better  
(B) should better  
(C) had better  
(D) have better
30. Many sea species ....  
(A) have already disappeared.  
(B) have disappeared already.  
(C) already have disappeared.  
(D) already had disappeared.
31. .... involved in the project.  
(A) She'd rather get not  
(B) She'd rather not get  
(C) She'd not rather get  
(D) She'd get rather not
32. They .... to have finished their study.  
(A) said  
(B) say  
(C) are said  
(D) will say
33. This is .... striking .... it wasn't expected at all.  
(A) more / as  
(B) all more / as  
(C) all the more / that  
(D) all the more / as
34. This is a .... old sample.  
(A) three-hundreds-years  
(B) three-hundred-years  
(C) three-hundred-year  
(D) three-hundred of years
35. They .... a new star recently.  
(A) discovered  
(B) have discovered  
(C) had discovered  
(D) discover
36. .... you need further information, please tell us immediately.  
(A) Would  
(B) Should  
(C) Will  
(D) Shall
37. If they .... more careful, they .... so much money.  
(A) have been / would lose  
(B) are / wouldn't lose  
(C) were / will have lost  
(D) had been / wouldn't have lost
38. There's .... carbon dioxide in this place.  
(A) twice less  
(B) two times less  
(C) half as much  
(D) half less
39. The oceans are becoming .... polluted.  
(A) the more and the more  
(B) more and the more  
(C) the more and more  
(D) more and more

**FIN**



ECOLE DES PONTS PARISTECH,  
ISAE-SUPAERO, ENSTA PARIS,  
TELECOM PARIS, MINES PARIS,  
MINES SAINT-ETIENNE, MINES NANCY,  
IMT ATLANTIQUE, ENSAE PARIS,  
CHIMIE PARISTECH - PSL.

Concours Mines-Télécom.

CONCOURS 2023

ÉPREUVE DE LANGUE VIVANTE

Durée de l'épreuve : 1 heure 30 minutes

L'emploi de tous documents (dictionnaires, imprimés, ...) ou de tous appareils (traductrices, calculatrices électroniques, ...) est interdit dans cette épreuve.

*Cette épreuve est commune aux candidats des filières MP, MPI, PC et PSI.*

L'épreuve de langue vivante est constituée d'un **exercice d'expression écrite** qui consiste à répondre à deux questions, et d'un **thème**.

- La première question est notée sur 4.
- La deuxième question est notée sur 8.
- Le thème est noté sur 8.

La réponse à la première question devra comporter 80 mots plus ou moins 10%.

La réponse à la deuxième question devra comporter 180 mots plus ou moins 10%.

Dans les deux questions de l'exercice d'expression écrite, le candidat indiquera le nombre de mots employés dans sa réponse.

*Le non respect des limites indiquées sera sanctionné.*

Les candidats sont priés de mentionner en tête de leur copie la langue dans laquelle ils ont composé, qui est obligatoirement celle qu'ils ont indiquée dans leur dossier d'inscription.

Les candidats trouveront l'épreuve d'allemand aux pages 1 et 2, l'épreuve d'anglais aux pages 3 et 4, l'épreuve d'arabe aux pages 5 et 6, l'épreuve d'espagnol aux pages 7 et 8, l'épreuve d'italien aux pages 9 et 10 et l'épreuve de russe aux pages 11 et 12.

*Les références et les titres du thème, lorsqu'ils existent, ne sont pas à traduire.*

*Pour faciliter la correction de l'épreuve, les candidats écriront leur texte toutes les deux lignes.*

## ANGLAIS

### Expression écrite

Prescot, near Liverpool, is thought to be the site of the only Elizabethan-era indoor playhouse outside London. The theatre opening there on July 15<sup>th</sup>, a timber-framed replica of a 17<sup>th</sup>-century playhouse, is meant to have greater impact. The idea is for the Shakespeare North Playhouse to become one corner of a theatrical triangle along with Stratford-on-Avon, where the Royal Shakespeare Company has its base, and Shakespeare's Globe theatre in London. The venue is central to plans to revive Prescot, which is in one of the most deprived areas of Britain. It is expected to bring in 140,000 visitors and add £5.4m (\$6.4m) to the local economy each year. Shakespeare-themed businesses are cropping up; a pub called 'The Bard' now graces the high street.

Under Boris Johnson, the government has been keen on using cultural attractions to advance its 'levelling up' agenda, to reduce inequalities between the south-east and the rest of the country. But when it comes to winning funding for projects, cultural institutions can be at a disadvantage. As well as creating jobs and luring tourists, these venues claim many intangible benefits. Melanie Lewis, the boss of the new theatre in Prescot, lists social activities to reduce loneliness among the elderly, educational programmes for local children and, most unquantifiable of all, enhanced pride in the city. Pricing such benefits is tricky, especially if admission is free (as it is at most national museums). One technique is to ask people how much they would be willing to pay for something. The answers can be used to assess what people get out of a cultural asset and to test out hypothetical scenarios that might inform funding decisions.

In 2021 the government launched a multi-year research project into how to value the benefits of culture and heritage. But the real constraint on new projects is limited budgets. Most arts funding in England comes from local government; the bulk of the money to pay for the theatre in Prescot was from local authorities. A wobbly economy, and a new prime minister who is less wedded than Mr Johnson to the idea of levelling up, may mean fewer curtains going up. The course of cultural regeneration never did run smooth.

Adapted from *The Economist*, 14<sup>th</sup> July 2022

### Questions

1. According to the article, what benefits is Prescot's theatre expected to bring to the local community and what major question does it raise? Answer the question in your own words. (80 words, ± 10%)
2. In your opinion, to what extent can culture (in its widest meaning) lead to a reduction in social inequalities? Illustrate your answer with relevant examples. (180 words, ± 10%)

## ANGLAIS

### Thème

Irina avait trouvé un prétexte pour se débarrasser de sa fille et se noyer dans le vin et le whisky bon marché.

« Tu ne vas pas te sentir seule ? En août on travaille à plein temps.

— Oh non. J'ai apporté des livres. Et je vous aiderai au restaurant.

— Pas question. Ici tu es en vacances. »

Il était agréable d'être traitée en enfant gâtée.

Le club de vacances que géraient Jacques et Paulette se trouvait sur une petite péninsule au bout d'une longue route. Paulette se gara devant le bâtiment principal. Clarisse descendit de voiture. C'était son sixième été ici. Elle se sentait chez elle. Jacques se précipita hors du bureau et la serra contre lui.

« Et voilà la plus belle ! Tu n'as pas changé du tout ! » Paulette rit.

« Je viens de lui dire le contraire ! »

D'après Catherine Cusset, *La Définition du bonheur*, 2021

## LANGUE VIVANTE OBLIGATOIRE : ANGLAIS

Durée : 2 heures

**L'usage d'abaques, de tables, de calculatrice et de tout instrument électronique susceptible de permettre au candidat d'accéder à des données et de les traiter par les moyens autres que ceux fournis dans le sujet est interdit.**

Chaque candidat est responsable de la vérification de son sujet d'épreuve : pagination et impression de chaque page. Ce contrôle doit être fait en début d'épreuve. En cas de doute, le candidat doit alerter au plus tôt le surveillant qui vérifiera et, éventuellement, remplacera le sujet.

Ce sujet comporte 3 pages numérotées de 1 à 3.

Si, au cours de l'épreuve, un candidat repère ce qui lui semble être une erreur d'énoncé, il le signale sur sa copie et poursuit sa composition en expliquant les raisons des initiatives qu'il a été amené à prendre.

**L'épreuve comprend trois parties :**

**I – Thème :** 6 points sur 20

**II – Compréhension de l'écrit :** 6 points sur 20

**III – Expression écrite :** 8 points sur 20

Vous indiquerez avec précision à la fin de la question de compréhension et de l'essai le nombre de mots qu'ils comportent. Un écart de 10 % en plus ou en moins sera accepté. Des points de pénalité seront soustraits en cas de non-respect de ces consignes

## I — Thème

### Traduisez le texte ci-dessous en anglais

Abandonnées au profit des téléphones portables, les célèbres cabines britanniques sont proposées à l'adoption pour une livre sterling symbolique et réutilisées par les communautés de tout le pays. Bibliothèques, cafés, boîtes de nuit... les acquéreurs rivalisent d'idées pour les réhabiliter.

Un matin de 2006, les habitants de Soho, quartier branché et central de Londres, se réveillent face à un drôle de meurtre. Sous leurs fenêtres gît une cabine téléphonique courbée en deux, une pioche féroce plantée dans sa porte, qui dégouline de peinture rouge. L'œuvre, « Mort d'une cabine téléphonique », est signée Banksy et semble symboliser la fin d'une certaine manière de communiquer.

En effet, à l'heure où neuf adultes sur dix ont un téléphone portable au Royaume-Uni, l'avenir de ces sympathiques habitacles semble compromis. Il n'en reste aujourd'hui que 21 000 dans le pays, contre plus de 70 000 dans les années 80, et les évolutions technologiques voudraient qu'ils soient peu à peu remplacés par des bornes wi-fi et autres bancs connectés.

*Libération*, 4 décembre 2022

## II — Compréhension de l'écrit

Répondez en anglais à la question sur le texte ci-dessous en 100 mots + ou - 10 %.

### On the troubles of naming species

*The Economist*, Sep 21<sup>st</sup> 2022

*What do you do when a name becomes problematic?*

Beige, blind and distinctly underwhelming, Hitler cowers in the remote caves of Slovenia. This is not the Führer, but a tiny carabid beetle, named *Anophthalmus hitleri*, or “eyeless hitler”, by Oskar Scheibel, a German entomologist, in 1937.

The translucent bug has little to fear in its natural habitat, except Nazi memorabilia enthusiasts who collect it illegally. The beetle fetches over £1,000 on the black market. Even in death the bug is pillaged—the Bavarian State Collection of Zoology had almost all of its *A. hitleri* specimens stolen. “It’s an innocent insect,” says Mirjana Roksandic, an anthropologist at the University of Winnipeg in Canada. “Why not end this illegal trade by changing its name?” Scientists have, for decades, called for *Anophthalmus hitleri* to be renamed something less offensive. But zoological nomenclature abides by a code of priority to the first taxonomist to describe a species. Whether it’s *Nannaria swiftae* (Taylor Swift’s millipede) or *Leninia stellans* (Lenin’s six-metre ichthyosaur), once a name is given it must stick.

As the statues of history’s antagonists fall and their portraits and names are removed from the world’s great buildings, researchers are wondering whether or not the names should

nevertheless live on in the world of taxonomy. Academics such as Dr Roksandic are calling to erase names that honour colonial figures, and in some cases to restore indigenous ones. Species have a precise two-part scientific name (often Latin, but they can be any language) that is understandable across the world. *Homo sapiens* or *Canis lupus*, in which the “sapiens” and “lupus” are the species epithets and “Homo” and “Canis” the genus, are recorded throughout history in a way that is fixed and easy to follow. These rules were formalised by Carl Linnaeus, a Swedish botanist, in 1753. The International Commission on Zoological Nomenclature (ICZN) enforces the rules today.

Thomas Pape, ICZN’s president, says his organisation serves the “stability and universality” of nomenclature, which involves “mandating scientific naming rules but not ethical arguments”. On the *hitleri* beetle, Dr Pape says: “It was not offensive when it was proposed, and it may not be offensive 100 years from now.”

This rigid stance also applies to naming humans. In 2021 Dr Roksandic suggested renaming an ancient human species found in Zambia, *Homo rhodesiensis*, to *Homo bodoensis*. Writing in *Evolutionary Anthropology*, Dr Roksandic has urged taxonomists to drop the “rhodesiensis” that was associated with the colonial state of Rhodesia and its human rights abuses.

“One option would be to informally change its vernacular name,” says Patrice Bouchard, vice-president of the ICZN. There is precedent for this—the Entomological Society of America decided in recent years that it would no longer use the common name for *Lymantria dispar*, “gypsy moth”, because it was deemed derogatory to the Romani people.

There is another wrinkle to the problem—the ICZN’s code, which was last updated in 1999, requires new species names to be published in scientific literature, but not necessarily peer-reviewed journals. Though this increases access to the field for amateur taxonomists who can find and name new species, it also has a dark side—a type of scientific misbehaviour known as “taxonomic vandalism”. By scouring preprints and other publications, vandals take evidence collected by others and publish their own names for hitherto untitled species. (...)

**Explain in your own words the issues that researchers are faced with regarding taxonomy today. (100 mots + ou - 10 %)**

### **III – Expression écrite**

**Traitez en anglais le sujet proposé en 200 mots + ou -10 %.**

**Should offensive traces of the past be erased in science as elsewhere in social life? Give examples to illustrate your answer.**

**FIN DU SUJET**

ÉCOLES NORMALES SUPÉRIEURES  
ÉCOLE NATIONALE DES PONTS ET CHAUSSÉES  
ÉCOLE DES MINES DE PARIS

CONCOURS D'ADMISSION SESSION 2023  
FILIÈRE BCPST  
COMPOSITION DE LANGUE VIVANTE ÉTRANGÈRE

Épreuve commune aux ENS de Lyon, Paris, Paris-Saclay, à l'ENPC et aux Mines Paris

Durée : 2 heures

L'utilisation des calculatrices n'est pas autorisée pour cette épreuve.

L'usage de dictionnaire est interdit.

\*\*\*

Parmi les sujets proposés, le candidat doit traiter celui correspondant à la langue vivante étrangère qu'il a choisie lors de son inscription.

Toute copie rédigée dans une langue qui ne correspondrait pas au choix apparaissant dans le dossier d'inscription définitif du candidat sera considérée comme nulle.

**Sujets proposés :**

- Allemand
- Anglais
- Espagnol

## ANGLAIS

### I. VERSION (12 points, titre à traduire également)

#### What ChatGPT and generative AI mean for science

*Researchers are excited but apprehensive about the latest advances in artificial intelligence.*

In December, computational biologists Casey Greene and Milton Pividori embarked on an unusual experiment: they asked an assistant who was not a scientist to help them improve three of their research papers. Their assiduous aide suggested revisions to sections of documents in seconds; each manuscript took about five minutes to review. In one biology manuscript, their helper even spotted a mistake in a reference to an equation. The trial didn't always run smoothly, but the final manuscripts were easier to read — and the fees were modest, at less than US\$0.50 per document.

This assistant is not a person but an artificial-intelligence algorithm called GPT-3, first released in 2020. It is one of the much-hyped generative AI chatbot-style tools that can churn out convincingly fluent text, whether asked to produce prose, poetry, computer code or to edit research papers. The most famous of these tools, also known as large language models, or LLMs, is ChatGPT, a version of GPT-3 that shot to fame after its release in November last year because it was made free and easily accessible. “I’m really impressed,” says Pividori, who works at the University of Pennsylvania in Philadelphia. “This will help us be more productive as researchers.”

But researchers emphasize that LLMs are fundamentally unreliable at answering questions, sometimes generating false responses. ChatGPT and its competitors work by learning the statistical patterns of language in enormous databases of online text — including any untruths, biases or outmoded knowledge. When LLMs are then given prompts, they simply spit out, word by word, any way to continue the conversation that seems stylistically plausible.

The result is that LLMs easily produce errors and misleading information, particularly for technical topics that they might have had little data to train on. LLMs also can't show the origins of their information; if asked to write an academic paper, they make up fictitious citations. “The tool cannot be trusted to get facts right or produce reliable references,” noted a January editorial on ChatGPT in the journal *Nature Machine Intelligence*. With these caveats, ChatGPT and other LLMs can be effective assistants for researchers who have enough expertise to directly spot problems or to easily verify answers. But the tools might mislead naive users. (...)

Adapted from *Nature*, Vol 614, 9th of February 2023, Pages 214-216.  
<https://www.nature.com/articles/d41586-023-00340-6>

### II. QUESTIONS (8 points, minimum de 100 mots par question)

1. What are reasons why Large Language Models fail to be perfectly accurate?
2. Do you believe that artificial intelligence will revolutionize scientific work? How do you envision responsibilities to be shared between human and machine?



Prépa *langues*

---

EUROSTAGES

131 rue de Picpus – 75012 Paris  
Tél. : 01 43 07 07 90 – E-mail : [info@prepa-langues.fr](mailto:info@prepa-langues.fr)

[prepa-langues.fr](http://prepa-langues.fr)