M1 ISC

APPLYING FOR A JOB
SCIENCE & MEDICINE
ROBOTICS

2022 - 2023
Semester 7

Responsabilité pédagogique, enseignement :
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Etudiant(e) :

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Description du cours

Ce cours a pour but de vous permettre de perfectionner votre niveau d'anglais dans les **5 activités langagières :** la compréhension de l'oral (CO), la compréhension de l'écrit (CE), l'expression écrite (EE), l'expression orale en continu (EOC), l'expression orale en interaction (EOI).
Votre seul investissement pendant les TD ne saurait suffire. Il conviendra donc de poursuivre et d'approfondir les activités de classe par **un travail personnel régulier**. Retravaillez les vidéos étudiées en cours, avec ou sans sous-titres. Relisez les textes et apprenez les mots nouveaux. Approfondissez votre maitrise de la grammaire en scannant les QR codes de la brochure qui vous donneront accès à des exercices en ligne corrigés. Faites-en d'autres sur des sites comme *anglaisfacile.com*. Vous trouverez sur eCampus la brochure **« KEEP CALM AND LEARN ENGLISH »** qui vous apportera une aide méthodologique et grammaticale. La plateforme **MYCOW**, en ligne sur le site de la BU de l'UEVE, vous propose des leçons et exercices de grammaire, des tests,… Chaque jour vous y trouverez un nouveau texte de presse (différents niveaux), des podcasts, vidéos…
Votre **compte eCampus** doit être activé dès le début d'année et consulté régulièrement. Certains devoirs devront y être déposés et vous pourrez avoir à y faire des tests.

Modalités d'évaluation

Votre semestre est évalué à **100% au contrôle continu**. Il n'y a pas d'exam final en session 1.
Session 1 : 25% CE + grammaire / 25% EE / 25% CO / 25% EO
Session 2 : 60% partiel écrit / 20% report note de CO / 20% report note d'EO

Assiduité aux cours

Votre **assiduité** ainsi que votre **ponctualité** seront prises en compte. En cas de retards fréquents ou conséquents, votre présence au cours ne sera pas validée.
Les dates d'évaluations sont communiquées au minimum deux semaines à l'avance, en cours et via eCampus. En cas d'absence non justifiée vous aurez la note de 00/20.
Peuvent servir de justificatif : les convocations à des examens, à la préfecture, les certificats médicaux incluant le jour du cours. Un billet d'avion n'est pas un justificatif. Votre justificatif devra parvenir à votre professeur par mail en précisant vos nom, prénom, année, filière et groupe avant le cours suivant ou être présenté le cours suivant. Aucun justificatif tardif ne sera accepté après le jury de fin de semestre.
En cas d'**absence prévisible**, merci d'avertir votre enseignant au plus vite.

Bonne année à tous !
A.C. COUTURIER

PART 1

APPLYING FOR A JOB

# 1	KNOWING WHO YOU ARE

Tool Box
Savvy : averti, astucieux, rompu à
To cope with sth : gérer qqch.
To meet deadlines: respecter des délais
A degree: une licence, un diplôme

① Answer the questions and give details.

Skills			
Can you…	use Powerpoint?	face new challenges?	speak another language?
Are you…	Internet savvy?	organized?	punctual?
Are you good at…	science?	negociating?	talking in front of an audience?
Are you able to…	work well in groups?	cope with stress?	meet deadlines?
Do you know how to…	prioritize tasks?	communicate effectively?	motivate a team?
Do you have …	any professional experience?	a driving licence?	any degrees?

CHECK 1	OPPOSITION / CONCESSION / RESTRICTION
BUT	= mais (avoid at the beginning of a sentence. Use **HOWEVER**)
NEVERTHELESS	= néanmoins
(AND) YET, (AND) STILL	= (et) pourtant
ALTHOUGH, EVEN THOUGH	= bien que
WHEREAS	= alors que

② Write 4 sentences to recap your answers to the 6 questions. Use the words above to express opposition, concession or restriction.

For example: *I can't use Powerpoint **but** I can speak 3 languages very well.*

*I am quite good at giving presentations, **however** I am not good at math.*

……

……

……

……

③ Translate the following statements into English.

a) Je sais très bien gérer le stress mais j'ai encore du mal à respecter des échéances.

➡

b) Je suis bon en anglais alors que je parle à peine espagnol.

➡

c) J'ai étudié la robotique à l'université pendant 4 ans. Maintenant je suis ingénieur.

➡

d) J'étudie les sciences depuis 4 ans.

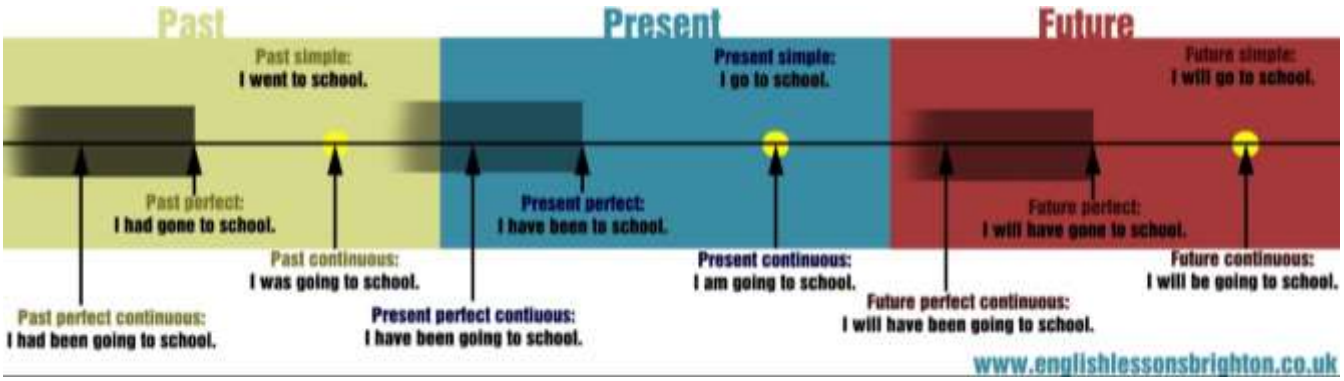
➡

e) J'étais timide mais maintenant j'ai l'habitude de parler devant un public.

➡

f) Je travaille à la BU tous les soirs mais aujourd'hui je n'y travaille pas.

➡



CHECK 2	TENSES AND ASPECTS
Present simple	Action always true / scientific fact / habits → *Always, often, sometimes, never, every day, once a month…* **He regularly works in a supermarket to pay his studies.**
Present continuous	Present action done at the moment of speaking / justification → *Now, at the moment, currently, look!, listen! …* **I can't answer my phone because I'm driving.**
Past simple	Complete, finished (and dated) past action → *Yesterday, last week, 2 years ago, this morning, in 2020, when I was a child….* **I borrowed / bought a new computer last week.**
Past continuous	Uncomplete past action / frame for another action, more punctual → *while (pendant que…)* **I was working when the teacher asked me to help my classmate.**
Present perfect simple	Past action which is going on in the present / has an impact / a result on the present situation = the **result** is important → *so far, (not) yet, since + point de départ, for + durée…* **I have already written 10 pages of my report.**
Present perfect continuous	Past action which has a result / which is going on in the present situation = the **activity** is important → *so far, (not) yet, since + point de départ, for + durée…* **I have been working for 2 hours and I'm really tired. I should stop for a while.**
Past perfect simple	Past action which happened before another past action The test **had already started** when I arrived at the uni.

/!\ irregular verbs : simple past = 2nd column / past participle = 3rd column

IRREGULAR VERBS
This brochure
page 77

④ Choose between *present be + ing* and *present simple*.

1. The water _____ (boil). Can you turn it off ?
2. Let's go out! It _____ (not/ rain) now.
3. My brother _____ (live) in London but he _____(not work) there.
4. I've lost my pen again. 'Not again ! ' You _____ (always/lose) your pen!
5. 'You _____ (work) hard today.' 'Yes, I have a lot to do.'
6. My parents _____(like) tennis but they _____(not/play).

⑤ Choose between *present be + ing* and *present perfect be + ing*.

1. Ann _____(work) from home today. She didn't go to Paris.
2. Peter can't stand science. He _____(study) maths for 5 years and he hates it.
3. - Where's Tom? - I think he _____(cook) because I can hear some noise in the kitchen.
4. I _____(wait) for the bus for hours. It's not going to come for sure.
5. My parents _____(live) in Malaga since 2010 and they can't speak Spanish!

⑥ Choose between *past simple* and *present perfect*.

1. When _____ (leave) the company?

2. _____(work) in Pakistan?

3. That's the best presentation _____(hear).

4. He's the most difficult customer _____(meet).

5. I _____(speak) to him last week.

6. _____(sign) a binding contract last year and it is still valid.

7. The reason I look so brown is that _____ (come back) from a business trip to Malta.

8. Sales _____(rise) in 1995.

9. It's obvious that _____ (not read) this report.

⑦ Choose the correct tense.

1. I just remembered that I _____ (not pay) the rent **yet**. I must do it tonight.

2. He _____ the piano since he was 5 years old. He _____(play) very well.

3. I wonder what he _____(do) now. Do you know where he is?

4. When I first _____ him in 1999 he _____ architecture. (meet, study)

5. While we _____ someone _____ into the house and _____our TV set. (fish, break, steal)

6. It won't be easy to get out of the country. The police _____ all of the ports. (watch)

7. When I _____ him he _____ a picture of his wife. (see, paint)

8. Tom can't have the newspaper now because his aunt _____ it. (read)

9. -Where _____ tonight? – I _____ out with Peter. (you go, go)

10. At 3 a.m. Jane _____ up her husband and said that she _____ that someone _____ to get into the house. (wake, think, try)

11. This bike _____ in our family for the last 14 years. My father _____ it for the first five years, then my brother _____ it and I _____ it since then. (be, use, ride, have)

12. You see, Doctor, she _____ ill two days ago and since then she _____ anything. I'm sure she _____ several kilos. (fall, not eat, already lose)

13. Most people _____ at work when the fire _____. (be, start)

14. After five years of travelling through Asia I _____ back to Europe next week. I _____ the flight (go, already book)

⑧ Get ready for the grammar test. Scan these QR codes to get more training.

SCAN ME SCAN ME SCAN ME SCAN ME

# 2	FINDING YOUR STRENGTHS AND WEAKNESSES

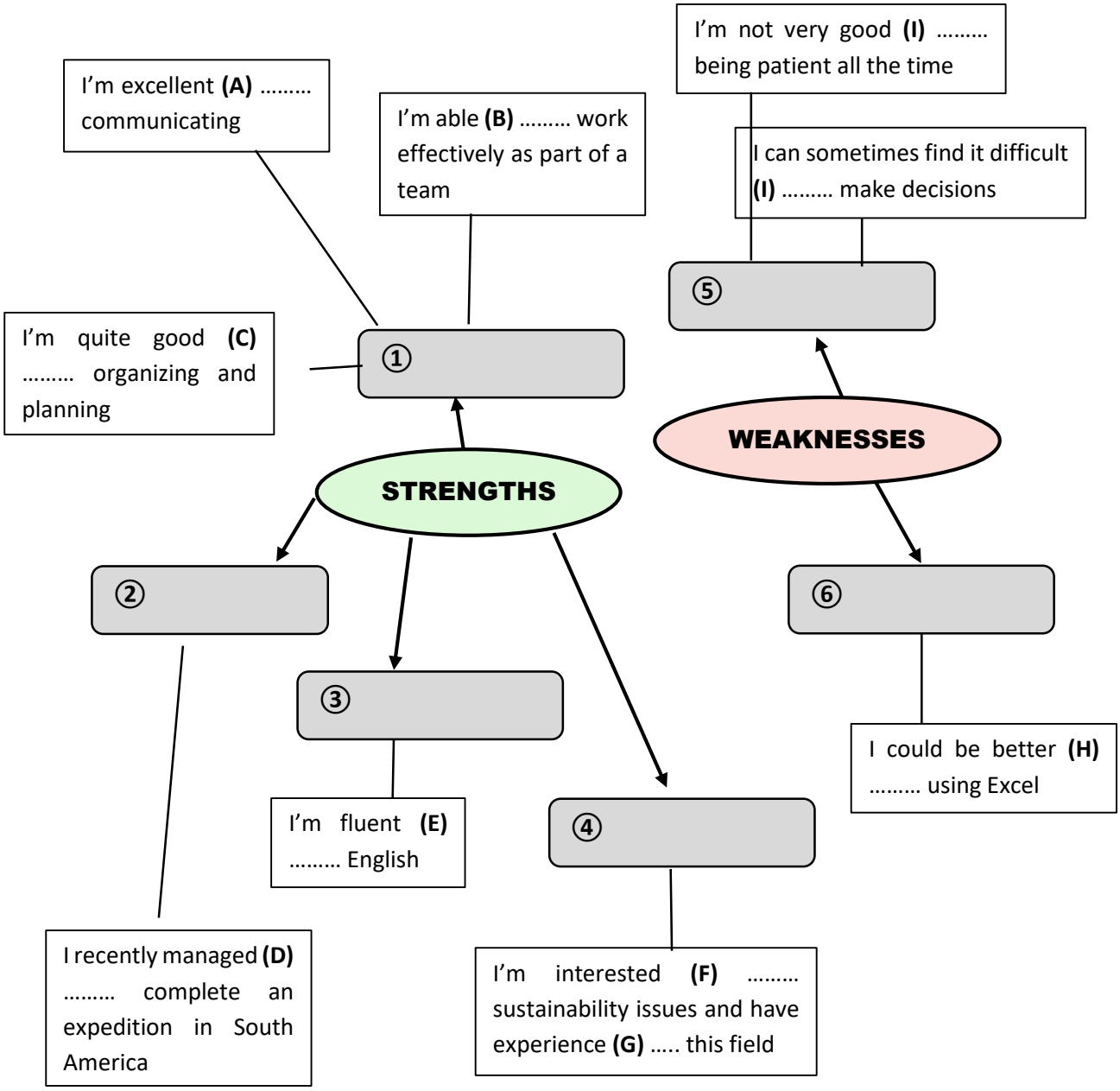
*The first thing you need to do when starting the job-hunting process is a **self-assessment of your own strengths and weaknesses**. This process will help you identify the skills, qualifications, experience, knowledge and personal characteristics that employers are looking for.*

① Complete the mind map.

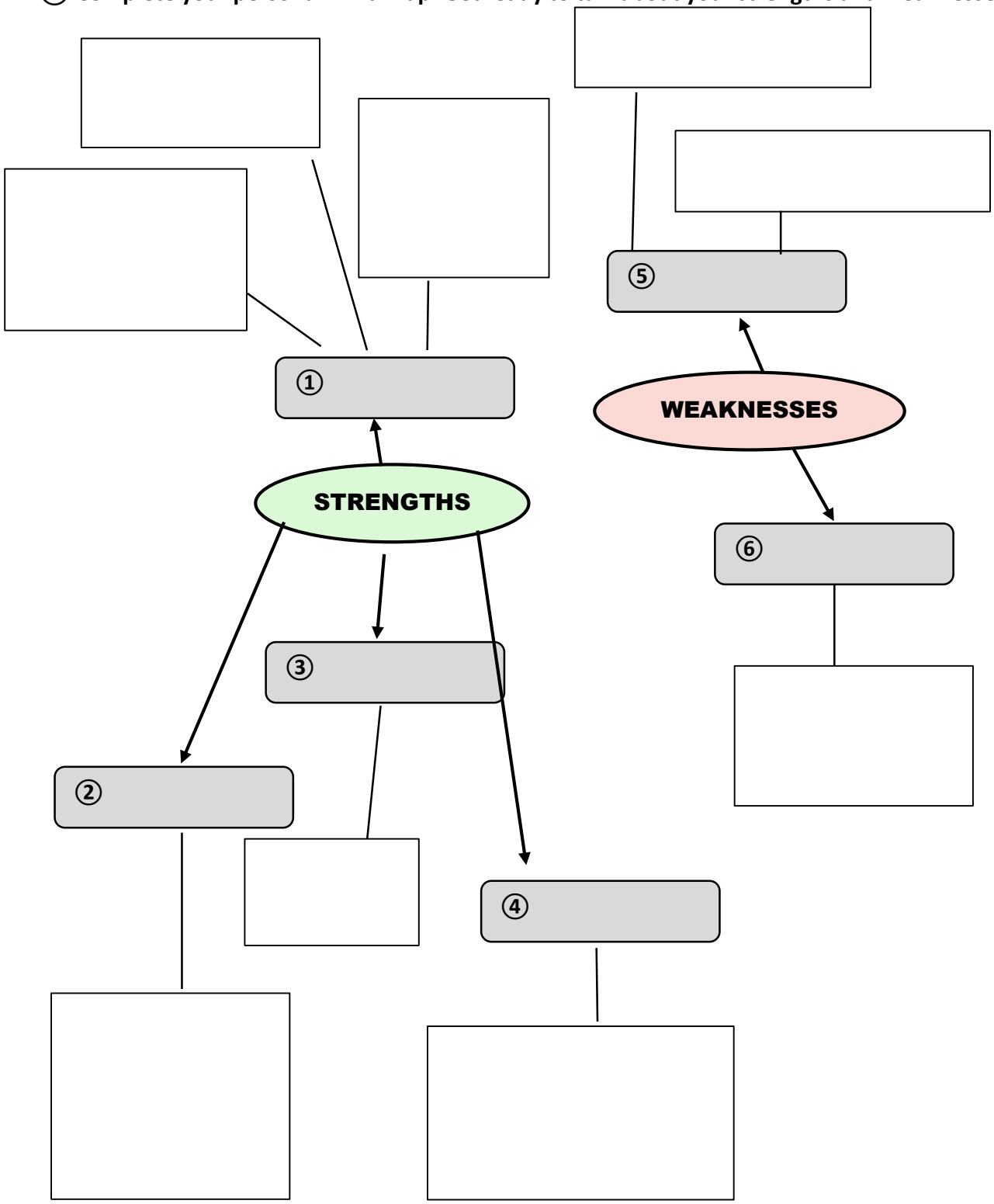
1. **Complete the sentences (A to J) with the correct preposition (*IN, TO* or *AT*)**
2. **Complete the headings (**① to ⑥**) using these words:**

• ACHIEVEMENTS • EXPERIENCE • KNOWLEDGE • LANGUAGES

• SKILLS • PERSONAL CHARACTERISTICS



② **Complete your personal mind map. Get ready to talk about your strengths and weaknesses.**



③ **Match the personal characteristics to the corresponding questions.**

1 CREATIVE	**A** Do you always do what you say you'll do?
2 DECISIVE	**B** Are you good at getting other people to agree with you?
3 FLEXIBLE	**C** Are you good at making up your mind quickly?
4 ORGANISED	**D** Are you able to plan ahead successfully?
5 PERSUASIVE	**E** Are you able to cope with last-minute changes?
6 RELIABLE	**F** Are you good at coming up with imaginative solutions?

④ **Match the adjective to its definition.**

Someone who is...		
(a)...flexible...	1)...believes in their own abilities.	9)...doesn't give up and continues to work hard on a project even when problems and difficulties arise.
(b)...honest...	2)...always wants to do the right thing.	10)...has strong reasons for doing what they are doing, and works hard because of these.
(c)...determined...	3)...always tells the truth and doesn't cheat people.	11)...puts a lot of energy and positivity into their work.
(d)...organised...	4)...plans their schedule carefully and keeps their desk tidy.	12)...gets on with other people well, is relaxed and doesn't get upset easily.
(e)...conscientious...	5)...can adapt their abilities to new situations.	
(f)...motivated...	6)...always arrives on time.	
(g)...reliable...	7)...aims for high goals and wants to achieve a lot in their life and career.	
(h)...ambitious...	8)...delivers a consistently high standard of work.	
(i)...enthusiastic...		
(j)...easy-going...		
(k)...punctual...		
(l)...confident...		

➔ **/id/ - motivated** /ˈməʊtɪveɪt**ɪd**/ **interested** /ˈɪntrəst**ɪd**/

➔ **/d/ - determined** /dɪˈtɜːrmɪn**d**/ **organised** /ɔːrgənaɪz**d**/
reserved /rɪˈzɜːrv**d**/

➔ **/t/ - stressed** /ˈstrɛs**t**/ **relaxed** /rɪˈlæks**t**/

⑤ **During a job interview, what qualities are being checked when you are asked the following questions?**

Qualities: punctual – ambitious – impulsive – persuasive – reliable – patient – careless – flexible – sociable - optimistic – careful – organised – reserved – imaginative – honest – creative -

a. How often have you been late over the last 3 months? ➡ .....
b. Do you find it easy to talk to other people? ➡ .....
c. How strong is your desire and determination to succeed? ➡ .....
d. Do you mind working late or at weekends if necessary? ➡ .....
e. Are you good at getting other people to agree with you? ➡ .....
f. Are you able to plan ahead successfully? ➡ .....

⑥ Express past actions with a result on the present situation. Put the verbs in the present perfect. Translate the sentences into French.

a) I …… finding new solutions (*always / be good at*)

➡

b) He …….. taking English lessons (*just / start*)

➡

c) They …… meet deadlines (*never / be able to*)

➡

d) You know that you …… planning ahead (*never / be good at*)

whereas I …… organized (*always / be*)

➡

⑦ Recap your strengths and weaknesses. Finish up these prompts.

STRENGTHS	I'm excellent at… I'm able to… I'm interested in … I recently managed to…
WEAKNESSES	I'm not very good at… I could be better at… I'm reasonably good at… I would like to be able to… I need to improve on….
POSITIVE CHARACTERISTICS	I am… I try to…
NEGATIVE CHARACTERISTICS	I can sometimes be… Occasionally I am… I can be a little bit…

# 3	HIGHLIGHTING YOUR SKILLS AND EXPERIENCES

*Employers will ask for **transferable skills** or competencies – the skills, knowledge and behavior they consider necessary for a particular job. Reviewing your previous experience will help you to identify your transferable skills and recognize jobs that you are qualified for.*

① Match the transferable skills to the examples of professional behaviour.

② Tick (☑) the professional behaviours that correspond to yourself.

• ~~ANALYTICAL SKILLS~~ • CREATIVITY • SELF-CONFIDENCE • COMMUNICATION SKILLS
• INDEPENDENCE • INTERPERSONAL SKILLS • NEGOCIATION SKILLS
• SELF-AWARENESS

	☐ I have a justified belief in my ability to do the job ☐ I am able to express my opinion or provide advice when necessary ☐ I am good at making decisions
	☐ I actively seek feedback on my performance and carefully consider that feedback ☐ I demonstrate an interest in and understanding of my own and other cultures ☐ I understand my own strengths and limitations
	☐ I am good at getting a good deal ☐ I am good at developing and managing relationships with others ☐ I am able to persuade, convince and gain support from others
	☐ I am able to formulate new ideas to solve problems ☐ I am able to think ahead to spot or create opportunities ☐ I set aside thinking time to come up with alternative ways of getting things
	☐ I can work with sustained energy and determination on my own ☐ I can find ways to overcome obstacles to set myself achievable goals ☐ I strive towards my own targets and refuse to settle for second best
Analytical skills	☐ I am good at data analysis ☐ I am excellent at interpreting data to see cause and effect and am able to use this information to make effective decisions
	☐ I am able to express myself effectively ☐ I am able to make my opinions totally clear and am rarely misunderstood ☐ I produce clear, well-written reports that can be easily understood
	☐ I am good at working cooperatively ☐ I am good at working and communicating within a team to achieve shared goals ☐ I am a good listener

# 4	PREPARING YOUR RESUME / CV

A recruiter will typically take just seventy-five seconds to read your CV *and decide whether you are a worthy candidate. This means* ***your CV needs to shout "hire me"*** *from start to finish, because busy recruiters don't have time to search out your hidden potential.*

① **Watch this video and take notes.** https://youtu.be/CP-wWXjQ4Oo

Tip 1:
➔ Length

➔ Font

Tip 2:
➔ Layout

Tip 3:
➔ Personal statement

Tip 4:
➔ Employment history

Tip 5:
➔ Education

Tip 6:
➔ Other elements

② Watch this video and complete your notes.
How to write an engineering CV. https://youtu.be/l0jnPTo1s9A

③ Read these CVs and get ready to write yours.

Brahim Baka

Address: 72 Boughton Rd, Bristol IP13 5UH, United Kingdom
Phone number: 070 5907 9865
Email address: brahimbaka@gmail.com

Profile

Performance-driven and motivated Environmental Engineer recognized for conducting professional site inspections and detailed project field assessments. Adept at developing and implementing new waste programmes, performing research, and providing advice on current environmental laws and regulations. Offers great knowledge of mathematics/science, excellent problem-solving skills, and extraordinary critical thinking abilities. Brahim is currently looking for an Environmental Engineer position with a forward-moving organisation.

Work experience

07/2015 - 04/2019 BRISTOL, UNITED KINGDOM
Environmental Engineer
Carrington West, Inc.

- Performed regular site inspections and project field assessments; conducted reports and analysed results, ensuring that all policies and procedures were fully followed.
- Monitored and controlled wastewater/waste air; stayed up-to-date with current environmental laws and regulations.
- Worked closely with hydro-geologists and other professionals on the development and implementation of a new waste programme which significantly reduced expenses and increased effectivity.
- Performed research on groundwater collected from sites; was in charge of SWPPP and SPCC development.
- Reduced the amount of generated waste by 65% within 3 years.
- Awarded Employee of the Month for performing great work.

Education

09/2014 - 05/2015 BRISTOL, UNITED KINGDOM
Environmental Engineering
University of the West of England
Master's degree
Top 5% of the Programme

09/2010 - 05/2014 LONDON, UNITED KINGDOM
Mechanical Engineering
University of Greenwich
Bachelor's degree
First Class Honours

Education

Clubs and Societies: Engineering Society, Politics Society, Volleyball Club

09/2008 - 05/2010 JORDAN, AMMAN
IB Diploma Programme
Amman Academy
Graduated with Distinction (Grade 1 - A/excellent equivalent in all subjects)
Activities: Math Society, Physics Society

Skills

- LANGUAGES

Arabic	**Native**
English	**Full**
French	**Limited**
Spanish	**Limited**

- PROFESSIONAL SKILLS

Mathematics/Science
Quality Control Analysis
Systems Evaluation
Technological Expertise

- INTERPERSONAL SKILLS

Complex Problem-solving
Communication Skills
Critical Thinking
Decision Making
Good Team Player
Multitasking
Time Management

Volunteering

09/2012 - 05/2013 LONDON, UNITED KINGDOM
Vice President
University of Greenwich Engineering Society

Certificates

06/2015
Chartered Environmentalist
Institution of Civil Engineers

Nathan Harry

CIVIL ENGINEER

nathan.harry@gmail.com | 1-202-555-0100 | Hoboken, New Jersey | linkedin.com/in/nathan

Languages

English

Arabic

French

Spanish

Education

Bachelor of Civil Engineering
University of Central Missouri - Warrensburg, US
Sep 2002 - Aug 2007

Awards

Best Engineer of the Year
New Arch Design
2019

Personal Skills

Excellent Communication

Teamwork

Time Management

Critical Thinker and problem solver

Hobbies

Reading Books

Playing Football

Gardening

Cooking

Summary

Dedicated and motivated civil engineer skilled in all phases of engineering operations , Consistently finishes projects under budget and ahead of schedule, Experience in finishing constructions, Demonstrated strengths in maintaining the highest quality and standard of the work and productivity, Raising staff Motivation, Good organisational skills gained once i have started working in site treating with different providers, workers, Dealing under pressure using all types to solve all problems and planning ahead.

Skills

- Adept with engineering tools and techniques
- Certificate in AutoCAD
- Extensive experience in residential, commercial and industrial projects
- Forward thinking professional familar with all aspects of construction and commercial
- Raising staff motivation and increasing quality through evaluation of workmanship
- Experience in MS Word, Excel, and PPT
- Certificated in SketchUp

Experience

Supervisor - Civil Engineer
Gensler - San Francisco, California *Aug 2014 - Present*

- Review all types of building projects in Lebanon (commercial, residential, hospitals, public properties, educational projects, touristic projects..) in order to give the final approval on the project's permit
- Review and approve the structural drawings in order to proceed with the construction work
- Review and approve all the projects upon the completion of the construction, with site visits when needed
- Ensure that the consultant/engineer is abiding by the structural codes (geotechnical reports, concrete strength, steel codes..)
- Ensure that the consultant/engineer is abiding by the Lebanese construction laws
- Train and educate employees on current and new rules, regulations and practices

Acting Construction Manager
Jacobs - Pasadena, California *Nov 2011 - Jun 2014*

ROY G BIVARDS

JUNIOR ENGINEER

PROFILE

Industrial Systems graduate, with 16-months Project Management experience in a high-demand, deadline-driven work environment. Proven leader, looking to leverage technical and interpersonal skills to add value within _____'s business portfolio.

CONTACT

C: 123 456 789

E: roygbiv@gmail.com

L: Rainbow, SKY.

SKILLS

Technical

Office (Excel, Project)
Reports (Tech., Rsrch.)
CAD (AutoCAD)
FEA (Feamap)
Programming (C++)

Essential

Communication
Leadership
Creativity
Adaptability
Collaboration

MOST PROUD OF

Graduating with Distinction

Remained dedicated and disciplined to surpass a personal GPA goal.

International Travel

One year backpacking solo through the (countries listed).

(Company) Safety Revision

Identified inadequacy, coordinated development of revised practices.

EXPEREINCE

Junior Project Manager

(Company) | Rainbow, SKY. | (Dates)

Worked collaboratively on multi-million-dollar commercial construction projects.

- Provided operations support (communications, conflict resolution, change management, deficiency tracking, etc.) to increase worksite efficiency.
- Coordinated on-site logistics (site meetings, work scheduling, SCM, quality assurance, etc.) to reduce loss of time, money, and resources.
- Liaised between internal (project manager, superintendent, safety coordinator) and external (sub-contractors, consultants, clients) parties.
- Managed project documentation (RFI's, CO's, inspection reports, progress reports, construction drawings, specifications, as-builts,, etc.).
- Assisted in the development and enforcement of HS&E practices and protocols.
- Supplementary tasks: budgeting, bidding, cost-coding, contract management, vendor relations, resource allocation, permitting.

EDUCATION

B. A. Sc., Industrial Systems Engineering

University of Rainbow| Rainbow, SKY. | (Dates)

Studied manufacturing, mechanical, and electrical theory and design. With a focus on the optimization of complex industry processes. Using analytics and creativity to increase productivity and reduce downtime.

- Graduated with **Distinction**.
- (Name) Scholarship.
- Final Year Design Project – (Dates)

ADDITIONAL EXPEREINCE

Education

Risk Assessment | Safety Systems | Industrial Machine Design | Computer Aided Engineering | Human Factors Engineering | Simulation and Modeling | Control Systems | Manufacturing Process and Machinery | System Dynamics and Controls.

Professional

(Golf Course) | Bar Manager | April 2018 – September 2018.
(Oil Refinery) | Fire and Safety Summer Student | 2013 - 2014.

Volunteer

(Non-Profit) | Canvasser | 2018 – Present.
(Non-Profit) | Canvasser | 2019

Continued Learning

(Company) Leadership Training | (waiting for course titles)
(Construction Courses | Construction Documents, Construction 101

MARY SMITH

Sometown, PA 17000
Phone: (555) 555-5555 ▪ Email: ms@somedomain.com ▪ LinkedIn URL

Recent graduate of ABET-accredited BSME program seeking an entry-level mechanical engineering position.

Key skills and knowledge areas:

- Solid command of technologies, tools and best practices in designing mechanical equipment using AutoCAD, SolidWorks and engineering drawings.
- Excellent shop and safety skills honed from work as a machinist and welder. Able to design and fabricate tooling and mechanical test fixtures.
- Strong team collaboration skills. Work closely with team members to achieve engineering goals.

EDUCATION

ABC University -- Sometown, PA
Ranked in the top 10 mechanical engineering schools by *US News and World Report*

Bachelor of Science in Mechanical Engineering (BSME), ***GPA: 3.4, 5/2016***

Completed Courses in Major:

- Statics, Dynamics, Engineering Analysis, Mechanics of Materials, Fluid Mechanics, Dynamics of Machinery, Measurement and Instrumentation, Mechanical Engineering Thermodynamics, Industrial Processes, Elements of Material Engineering, Machine Design, Mechanical Vibrations, Thermal Systems Laboratory, Heat and Mass Transfer

Design Project:

- Completed senior project at DEF Company, a manufacturer of machine tools for the sheet metal industry.
- Assisted engineering department in designing straight hand seamer used in bending, seaming and flattening sheet metal.
- Created models using SolidWorks and participated in cross-functional product-development meetings.
- Contributed idea for change in handle design that is expected to improve comfort and safety when gripping the seamer. Product is in preproduction testing phase.

TECHNICAL SKILLS

Programs: AutoCAD, SolidWorks, MS Project, MATLAB, MS Excel

Machining and Welding Tools: CNCs, mills, lathes, angle grinders, plasma cutters, oxy-acetylene torches, arc welders, band saws, grinders, shears, drill presses, chop saws, etc.

WORK EXPERIENCE

Machinist & Welder (contractor), 9/2015 to Present
Hired by ABC Machining Company as well as local construction companies to handle per-diem projects.

# 5	WRITING YOUR COVER LETTER

*When writing a cover letter to apply for a job, it's important to **include all the requisite information clearly and efficiently**. If any elements are missing, it may very well disqualify you from consideration.*

① Read this cover letter. Highlight any sentences or expressions that you may use in your cover letter.

ME

MECHANICAL ENGINEER

your.name@gmail.com | (XXX) XXX-XXXX | 142 Your Address Blvd, City Name, CA XXXXX

[Today's Date]

[Hiring Manager's Name]
[Company Address]
[Company City, State, xxxxx]
[(xxx)-xxx-xxxx]
[hiring.manager@gmail.com]

Dear [Mr./Mrs./Ms.] [Manager's Name],

My name is [your name] and I have been working with [previous employer] for the last [number of years]. The description you've outlined for the mechanical engineer position at [company name] strongly matches my experience and qualifications, especially prototype design of industrial machine components. As such, I am highly interested in joining your team.

I have a B.S. in Mechanical Engineering from U.C. Berkeley and have worked as a mechanical engineer for [number of years]. In my time at [previous employer] I was able to:

- Develop three prototype components of the SuperDrill 9000 that was commercially employed;
- Act as lead machinist and component designer on four separate engineering products for [previous employer];
- Win "Best Machinist – Western Region" - nominated twice

I am aware that [company name] has been engaged in some exciting projects and initiatives in the industry in recent years, especially with [project name or activity]. As you can see, I have been involved in similar work and know I could greatly contribute to [company name]'s goals in the future.

Thank you for taking the time to read my application and for your consideration. I would love to come in for an interview and am looking forward to hearing from you. I understand you've probably received a number of applications, so I will check in next week if I haven't heard anything by then. Thank you again for your time and consideration.

Sincerely,

[Your Name]

② Read the instructions below. Highlight the important tips you may find useful

A cover letter is comprised of several parts: your contact information, a salutation, the body of the cover letter, an appropriate closing, and a signature. Review what to include in each section, with examples.

Contact Information

- **What to include:** name, address, phone or cell phone number, email address, LinkedIn address
- **Choose a style:** Go with a simple block, centered header, or get a little fancy with the design if you're sending a hard copy.
- **Keep it professional:** Keep in mind that your email address should sound simple and professional. Never use a "cutesy" email address that refers to your hobbies or political opinions or is off-color – your email address needs to reflect your professional identity, not your sense of humor. You may want to create an email account dedicated solely to your career search.
- **Employer contact information:** It is most appropriate to include the employer's contact information on a formal, hard copy cover letter submitted through snail mail or by hand. If you are sending a job application by email or through an employer's online application system, it is not as necessary to include this contact information.

Cover Letter Salutation

Although you may not need to know the address of an employer when sending a cover letter via email, getting a name to address your letter to is important. Do your research to avoid having to use the generic "To Whom It May Concern" or "Dear Sir or Madam," which can make things look like you didn't make an effort to learn more about the job or the employer.
The best ways to learn contact names are to call an organization's front office or to review their website.

Cover Letter Body

The body of your cover letter lets the employer know what position you are applying for, why the employer should select you for an interview, and how you will follow up. This section includes:

- **First paragraph** - Why you are writing. This is "the grab," your chance to grasp your reader by the collar and get his attention. Offer some specific, focused information regarding the job you're seeking and a few core strengths that demonstrate your suitability for the position.
- **Second paragraph** - What you have to offer the employer. This is your hook where you highlight examples of the work performed and achieved results. Draw on your key competencies from your resume, although don't copy it word for word. Bullet points in this paragraph are extremely effective in drawing your reader's eye to your successes.
- **Third paragraph** - Your knowledge of the company. Show that you did some research and know something about the business and how you can contribute to its mission.
- **Fourth paragraph** - Your closing. Summarize what you would bring to the position and suggest next steps by requesting a meeting or suggesting a call.

Closing

Finish your letter with a formal closing like "Sincerely" or "Yours truly." A cover letter is professional correspondence, so don't use informal closings like "Cheers" in the letters you write to apply for jobs.

Your Signature

If you're sending a paper letter, type your name after the salutation, leaving a space for your handwritten signature. If you're sending an email cover letter, type your name and contact information after your salutation.

③ Analyse another example of cover letter. Highlight useful sentences.

COMPUTER SCIENCE COVER LETTER

Will.Sudo@gmail.com | (206) 527-1366
241 Prospect St., Seattle, WA 98112

[Today's Date]

[Hiring Manager's Name]
[341 Company Address]
Company City, State XXXXX]
(xxx)xxx-xxxx
[hiring.manager@gmail.com]

Dear [Mr./Mrs./Ms.] [Hiring Manager's Name],

I'm excited to submit my application for the [Position Name] position at [Company Name] I saw listed on [Website Name]. With a B.S. in Computer Science and over a year of hands-on experience building and testing apps for iOS and Android, I'm confident that I'd be a strong addition to your team.

While working as a software engineering intern at Macroworks in Ann Arbor, Michigan, I gained substantial experience identifying and fixing bugs, as well as coding in Java, Python, and Swift — all skills I'm confident would be useful at [Company Name]. Additionally, I leveraged my knowledge of Swift to help develop a productivity app for iOS that allows architects to render and edit blueprints.

Before working at Macroworks, I was a web development intern at Spin.io in Detroit, Michigan, where I was primarily responsible for fixing bugs, implementing UI enhancements, maintaining pages via WordPress, and using HTML, CSS, and JavaScript to build and enhance web pages. I also assisted in the development and rollout of a widget that helps cyclists locate their nearest bike lane, which is now one of Spin.io's most popular products.

Interning at these companies provided me the opportunity to put my coding knowledge to work — developing and testing products for the marketplace. At both Macroworks and Spin.io I demonstrated my ability to hit deadlines, maintain strong attention to detail, and produce top-notch code. I'm confident my skills will be put to good use at [Company Name], and I look forward to speaking with you further about the [Position Name] position.

For your convenience, I've attached a resume that further outlines my relevant skill set, accomplishments, and experience. Thank you for your consideration, and I look forward to hearing from you soon.

Sincerely,

[Your Name]

# 6	PREPARING FOR THE INTERVIEW

① Can you talk about yourself? Get ready to introduce yourself (name, age, nationality, studies, hobbies, work experience,…)

② Think of the questions you could be asked during the interview.
Find the correct questions and write them down in the appropriate box.

a) do have qualifications what you ➡
b) your do you see strengths as what ➡
c) you did where to go university ➡
d) Spanish is how your ➡
e) you graduate did when ➡

QUESTIONS	ANSWERS
	I am excellent at communicating and I am fluent in German.
	Actually, my Spanish is quite poor.
	I graduated with a BA[1] in Sociology in 2015.
	I studied at Evry University.
	I obtained a BS[2] in computer Science at Moscow University.

[1] **BA =** Bachelor of Arts
[2] **BS =** Bachelor of Science

③ Prepare the suitable answers.

*In all interviews you will be required to **talk about yourself**. The interviewers want to find out whether you're the type of person who would be able to do the job and also whether your personality would fit in with the rest of the company.*

*Whatever job you're applying for, there are some questions that you will nearly always get asked. Preparing for these questions will help you to use them to demonstrate effectively why **you are the best candidate** for the position.*

Watch the video and listen to Liz BANKS giving you some tips for your next job interview. For each of the 4 questions, write down her advice.
https://youtu.be/Nr2bpcpNQWY

SCAN ME

1/ What is your biggest weakness?

2/ Why should we hire you?

3/ Why do you want the job?
4/ Tell me about yourself…

④ **Pair work. Discuss with your classmate.**
Make sure you can answer the questions below.

a) *Can you tell us something about yourself?*
b) *What did you learn during your time at University?*
c) *What kinds of things do you worry about?*
d) *Would you say you're an ambitious person?*
e) *What do you see as your strengths?*
f) *What University did you attend, and why did you choose it?*
g) *What are your weaknesses?*
h) *What do you like doing in your spare time?*

⑤ **Make sure you know how to behave!**

*Much of the impact you create at an interview is based on your **body language** and getting this right is essential. The way you walk, sit and act may influence your interviewer's opinion of you as much as what you actually say.*

Watch the video and list the *Dos & Don'ts for Job interviews.* https://youtu.be/IcXkXTONp9M

SCAN ME

USEFUL LINKS

💻 Career advice, career guidance: https://www.monster.co.uk/
https://jobs.theguardian.com/careers/

💻 CV and cover letters: https://www.dayjob.com/
https://novoresume.com/cover-letter-templates

7 VOCABULARY

① LOOKING FOR A JOB

Job	Emploi
Job centre (GB) center (US)	Pôle emploi
Job offers	Offre d'emploi
Post, position	Poste
Job hunt(ing)	Recherche d'emploi
A job-seeker	Chercheur d'emploi
(classified) ads	Annonces d'emploi
Vacancy, vacant post	Poste vacant
Summer job	Job d'été
Odd job	Petit boulot
Placement (GB) Internship (US)	Stage
Trainee (GB), intern (US)	Stagiaire
The world of work	Le monde du travail
Block release training	Alternance
A temporary worker	Un(e) intérimaire

② APLYING FOR A JOB

Application form	Formulaire de candidature
Human resources	Les ressources humaines
Apply (for) / an applicant	Postuler / un(e) candidat(e)
Curriculum Vitae (GB), résumé (US)	CV
Reference letter	Lettre de recommandation
Personal statement, cover letter	Lettre de motivation
Work experience	Expérience professionnelle
Qualifications	Diplômes
Education, training	Parcours académique, universitaire
Skills	Compétences
interests	Centres d'intérêts
To work from home	Télétravail / de chez soi

③ DIPLOMAS

Baccalauréat	French secondary school diploma / A-Levels (GB)
BTS	Two-year technical degree
BUT	Three-year university degree in technology
IUT	University institute of technology
Licence	Three-year university degree in history, economics, science…
Maîtrise	Master's degree
Doctorat	PhD
Ecole d'ingénieurs	Engineering schools
Matières dominantes	Major
Mémoire de fin d'études	Dissertation (GB), memoir (US)
Réaliser une étude sur	To conduct a survey on…
Mention bien / Très bien	With distinctions / with honors

④ BEING HIRED

Appointment	Rendez-vous
Interview	Entretien
Get the job/position	Avoir le poste
Full-time job	Emploi à plein temps
Part-time job	Temps partiel
Night shift	Horaires/poste de nuit
On probation	À l'essai
Extra hours	Heures supplémentaires
Contract	Contrat
To sign	Signer
To hire / take on	embaucher
Night shift	Horaires / poste de nuit
Fixed-term contract	CDD
Long-term contract	CDI

⑤ EXPRESSIONS

No vacancy	Pas de disponibilité
Staff wanted	On recherche du personnel
A nine-to-five job	Un travail de bureau
I got fired / sacked	Je me suis fait viré(e)
To be made redundant	Etre licencié(e)
To fire / sack (fam.)	Virer, licencier
Unfair dismissal	Licenciement abusif
The unemployed/jobless	Les chômeurs
To be on the dole (GB) To be on Welfare (US)	Toucher le chômage
A workaholic	Un bourreau de travail
On-the-job training	La formation sur le tas
Equal pay for equal work	A travail égal salaire égal

⑥ INSIDE THE COMPANY

A factory, a plant	Une usine
A workshop	Un atelier
The labour force	La main d'œuvre
Wages The salary	Les salaires Le traitement
A trade union A trade unionist A union representative	Un syndicat Un syndicaliste Un representant syndical
Staff, personnel	Le personnel
A blue-collar worker	Un ouvrier
A white-collar worker	Un employé de bureau
A colleague, a co-worker A workmate	Un(e) collègue
An executive	Un cadre
The Chief Executive Officer (CEO)	Le PDG

# 8	INDUSTRIAL ENGINEERING

① What is an industrial engineer? What kind of job is it? Which fields are concerned?

② Watch the video and match these people with their position.

https://youtu.be/WMbJuTlajsw






Jose Nuñes	Sarah Bonzo	Nicole Rank	Pat Sunderlin	Ketan Sardeshmukh	Jane Ammons

1. I.E., Walt Disney World.
2. Director and Deputy Vice President, Operations I. E., Lockheed Martin Corporation.
3. Institute of I.E.
4. I.E., Mission integration engineer, Kennedy Space Center.
5. I.E., the Hershey Company.
6. I.E., Lean Sigma Specialist, Rochester General Hospital.

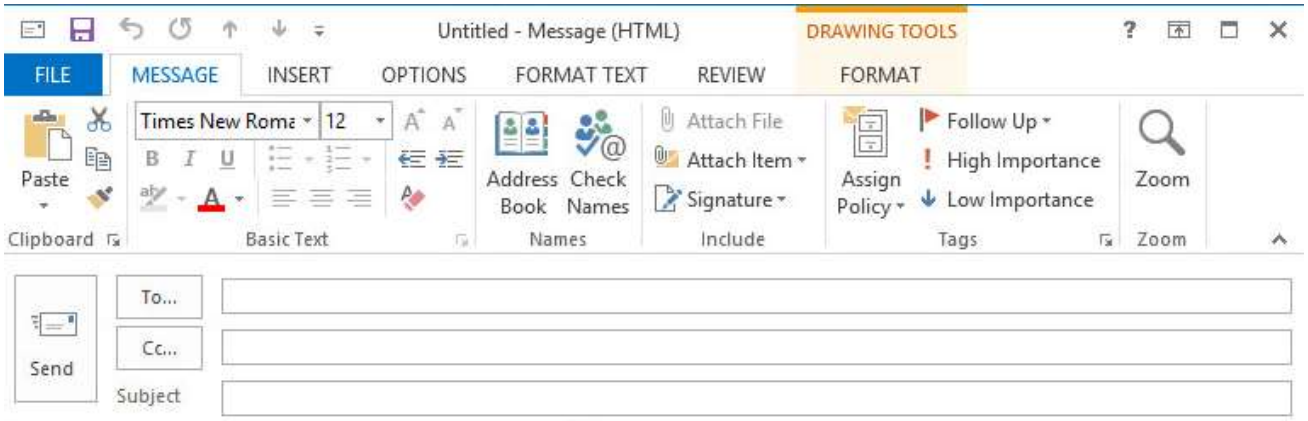
③ Watch the video again and explain what each one of them does.

 Jose Nuñes	
 Sarah Bonzo	
 Nicole Rank	
 Pat Sunderlin	

 Ketan Sardeshmukh	
 Jane Ammons	

④ Explain what an industrial engineer is.

⑤ You are looking for an internship. Contact one of these engineers. Write him / her an email to ask for more information about the position.



WRITE AN EMAIL
This brochure
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⑥ Write a cover letter to apply for the job. Hand it out to your teacher for correction.

# 9	GOING THROUGH THE INTERVIEW

① **Make groups of 4 students (2 candidates + 2 recruiters).**

Students A / B ☞ **You are a candidate. You are going through a job interview.**

- ✓ Greet your interviewers
- ✓ Say why you are here
- ✓ Introduce yourself
- ✓ Answer the questions

Students C / D ☞ **You are a recruiter. Prepare 3 questions for each candidate.**

② **Recruiters. Use the chart below to take notes about both candidates.**

Important Points	Candidate A	👍	👎	Candidate B	👍	👎

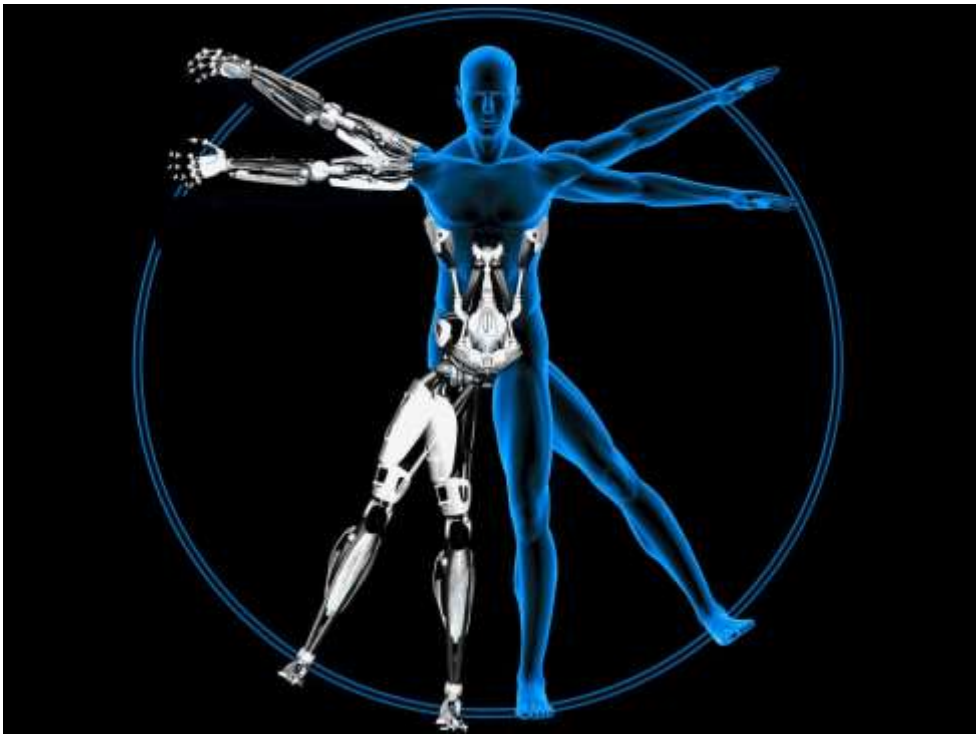
③ **Recruiters.**
Discuss which candidate you want to hire.

INTRODUCE YOURSELF
This brochure Page 76

GIVE YOUR OPINION
This brochure Page 72

PART 2

SCIENCE & MEDICINE



# 10	THE HISTORY OF MEDICINE

① Give the centuries corresponding to these dates.
What do AD, BC, BCE and CE stand for?

- *2600 BC / BCE …….*
- *1249 AD …….*
- *1590 AD ……..*
- *1895 CE ……*
- *1950 AD ……*
- *2006 CE ……*

② When did this happen? Match the dates from ① with the following events.

The Egyptian Imhotep described the diagnosis and treatment of 200 diseases ……

John Hopps invented the first cardiac pacemaker …….

Roger Bacon invented spectacles ……

First vaccine to target a cause of cancer ……..

Zacharius Jannssen invented the microscope ……..

Wilhelm Conrad Roentgen discovered X rays …….

③ Ask questions to get the missing information hidden by the different boxes.

Q 1	Roger Bacon invented spectacles
Q 2	First contact lenses developed
1913	Q 3 pioneered the use of the electrocardiograph - ECG
1975	Robert S. Ledley invented Q 4
Q 5	First test-tube baby was born.
1984	Alec Jeffreys devised a genetic fingerprinting method
1996	Q 6 became the first clone

Q 1/……

Q 2/……

Q 3/……

Q 4/……

Q 5/……

Q 6/……

CHECK 3	SIMPLE PAST
Past, finished (and dated) action	What **did** Bacon **invent** in the 13th century? He **invented** spectacles but he **didn't invent** binoculars. *infinitive* Who **did** Bacon **meet?** He **met** a lot of scientists. He **was** a monk. He **wasn't** a doctor!

CHECK 4 — ASKING QUESTIONS

① **Yes / No questions : you answer with yes or no.**

➔ **AUX + subject + (verb)**

Were you in Paris yesterday? **Can** you surf? **Is** he happy? **Have** you won any cups?

② **Wh-questions: you answer with the information**

➔ **About a subject: No auxiliary : WH + conjugated verb + (complement)?**

WHO **invented** the syringe? WHAT **happened** in 2006?
WHO **wants** to study medicine?

➔ **About a complement : Auxiliary: WH + AUX + subject + (verb) + (complement) ?**

When **did** Mbappé win the world cup? Why **are** you tired? Where **will** you go?

Auxiliary	Present	Past	+ ….	= …	Questions
Be	am is are	was were	V-ing	present / past continuous	What **are / were** you **doing**?
			past participle	Passive voice (any tense)	Where **is / was** he **taken**?
Have	have has	had	past participle	Present / past perfect	Where **have / had** you **been?**
Do	do does	did	bare infinitive	present / past simple	When **does / did** he **go**?
Modals	can will shall may must	could would should might XXXXX	bare infinitive		Why **should** he **go**? **Will** he **come**?

④ **Make Wh-questions with *who* or *what*:**

1. 'Somebody hit me.' → Who **hit** you? On cherche le sujet
2. 'I hit somebody.' → Who **did** you hit? On cherche le complément
3. 'Tom / Mike offered me a book.'
4. 'The phone / the bell rang.'

5. Diane said hello / good bye.'

6. This money belongs **to** her / him.'

7. Anna / Sarah got the job.'

8. 'I fell over this box / this book.'

9. Nath / Peter likes tennis.'

10.'This word means 'tuyau' / 'casserole'

11. 'I borrowed the money **from** my mum / my dad.'

12.'I'm happy about that meeting / that party.'

⑤ Ask questions to get the underlined words.

1) He ran across the street.
2) She said it very politely.
3) I will spend my holiday in New York.
4) Tom often helps me with my homework.
5) I play tennis three times a week.
6) They gave up their jobs on Monday.
7) They are driving their blue car.
8) The children went to the mall yesterday.
9) They have known each other for 10 years.
10) This jacket is 50 dollars.

⑥ Ask the question to get the underlined element.

1. _____ ? No, she doesn't like football.
2. _____ ? I go to school every day.
3. _____ ? Yes, It's my cat.
4. _____ ? I get up at six o'clock.
5. _____ ? This year, I study in a college.
6. _____? Peter makes his bed every day.
7. _____ ? I have a shower every evening.
8. _____ ? Marc travels by boat.
9. _____? That dress costs 20€.

⑦ Do these online exercises and check the correction.

Scan me Scan me Scan me

# 11	HOW IMPORTANT IS SCIENCE IN YOUR LIFE?

You are a journalist for an American magazine. You are interviewing Priscille D. Find out how she is linked to science.

① Look at picture n°1. Ask 5 yes/no questions to Priscille.

1/ _____

2/ _____

3/ _____

4/ _____

5/ _____

ASKING QUESTIONS
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② Look at the second picture and ask 5 Wh-questions.

1/ _____

2/ _____

3/ _____

4/ _____

5/ _____

③ Interested in Priscille's adventure? Watch her TEDxIMTMinesAles in French.
'Qu'est-ce que le progrès réveille en chacun d'entre nous ?'

https://youtu.be/e5f-uQVIkjQ

# 12	BODY HACK

① Watch video 1. https://youtu.be/aw_XquJURpQ

Explain what you learn about James Young.

Who is James Young? What does he like?
What happened to him? What did it result in?
What is his prosthetics like? How did he get it?
How do people react to it?

② Watch video 2 (→ 4'05). https://youtu.be/NZNFkMW9uFg

Pick up elements about Snake and about Young's prosthetics.

③ Share your findings with your classmates. Get ready to recap what you know about James Young.

CHECK 5	USED TO – BE USED TO – GET USED TO

James Young **used to <u>play</u> video games** a lot before his accident.

➔ Simple past = permanent past action/situation which is not longer done/true in the present – no mention of duration of the action / past habits – *avant / autrefois + imparfait*

➔ He ……(not swim) at all.

He **is getting used to <u>playing</u>** with his new prosthetics a bit more every day.

➔ Present *be+ing* (but all tenses possible) = *s'habituer à, se faire à*

➔ He ……(not walk) fast.

Now he **is used to do<u>ing</u>** many house chores with his new arm.

➔ Present simple (but all tenses possible) = *être habitué à, avoir l'habitude de*

➔ He……(not play the piano)

④ Complete with one of the three forms above.

1. I _____ (dance) a lot. I train 4 times a week.
2. She _____ (make) nice cakes but she doesn't cook any more.
3. Mary _____(teach) on line more and more. She sometimes has problems with her connection but she almost likes it now!
4. John _____(speak) English. He's a guide at the Eiffel Tower.
5. Maude and Tom _____(drink) black tea. They drink 2 liters a day!
6. I work at 5 am every day so I _____(wake up) early.

⑤ You are chatting with James Young on a gaming platform. Ask him 4 questions.

_____

_____

_____

_____

⑥ Homework.

Interested in James Young's adventure? Watch part 2 of Metal Gear Man.

https://youtu.be/kRxV0qw7rJg

SCAN ME

LAB 1	THE MIND-CONTROLLED BIONIC ARM

① Watch the video in English (NO SUBTITLES) without taking any notes.

https://youtu.be/F_brnKz_2

② Watch the video again and answer the questions below.
In ③ list the new words / exressions you have discovered.

1) What happened to Melissa Loomis?

_____

_____

2) What does Professor Mc Loughlin tell us about the program he is leading?

_____

_____

_____

3) What is special about Melissa's case?

_____

_____

_____

4) What is the name of the surgery used to enable the patients to feel touch again?

_____

_____

5) How does this prosthetic arm work? What is new about it?

_____

_____

_____

_____

6) How is machine learning involved here?

_____

_____

_____

7) What questions does this breakthrough raise?

_____

_____

_____

8) What potential dangers could it lead to?

_____

_____

_____

③ List the new words / expressions you have learnt.

④ Write a paragraph to present this video. Read Check 2 page 6 and check the tenses.

_____

_____

_____

_____

_____

_____

_____

_____

_____

# 13	HOW CAN SOMEONE CONTROL A MACHINE WITH THEIR THOUGHTS?

BY JULIA LAYTON

This week, the Rehabilitation Institute of Chicago introduced the first woman **to be fitted** with its "bionic arm" technology. Claudia Mitchell, who had her left arm amputated at the **shoulder** after a motorcycle accident, can now **grab** a drawer pull with her prosthetic hand by thinking, "grab drawer pull." That a person can successfully control multiple, complex movements of a prosthetic **limb** with his or her thoughts opens up a world of possibility for amputees. The setup -- both surgical and technological -- that makes this feat possible is almost as amazing as the results of the procedure.

The "bionic arm" technology is possible primarily because of two facts of amputation. First, the motor cortex in the brain (the area that controls voluntary muscle movements) is still sending out control signals even if certain voluntary muscles are no longer available for control; and second, when doctors amputate a limb, they don't remove all of the nerves that once carried signals to that limb. So if a person's arm is gone, there are working nerve stubs that end in the shoulder and simply have nowhere to send their information. If those nerve endings can be redirected to a working muscle group, then when a person thinks "grab handle with hand," and the brain sends out the corresponding signals to the nerves that should communicate with the hand, those signals end up at the working muscle group instead of at the dead end of the shoulder.

Rerouting those nerves is not a simple task. Dr. Todd Kuiken of the RIC developed the procedure, which he calls "targeted muscle reinnervation." Surgeons basically dissect the shoulder to access the nerve endings that control the movements of arm **joints** like the **elbow**, **wrist** and hand. Then, without damaging the nerves, they redirect the endings to a working muscle group. In the case of the RIC's "bionic arm," surgeons attach the nerve endings to a set of **chest** muscles. It takes several months for the nerves to grow into those muscles and become fully integrated. The end result is a redirection of control signals: The motor cortex sends out signals for the arm and hand through nerve passageways as it always did; but instead of those signals ending up at the shoulder, they end up at the chest.

To use those signals to control the bionic arm, the RIC setup places electrodes on the surface of the chest muscles. Each electrode controls one of the six motors that move the prosthetic arm's joints. When a person thinks "open hand," the brain sends the "open hand" signal to the appropriate nerve, now located in the chest. When the nerve ending receives the signal, the chest muscle it's connected to contracts. When the "open hand" chest muscle contracts, the electrode on that muscle detects the activation and tells the motor controlling the bionic hand to open. And since each nerve ending is integrated into a different piece of chest muscle, a person wearing the bionic arm can move all six motors simultaneously, resulting in a pretty natural range of motions for the prosthesis.

①Answer the questions below.

1/ What happened to Claudia Mitchell?

2/ What does TMR stand for? Explain the procedure.

3/ How will it change Claudia's life?

② Translate the words in grey.

③ Ask 3 questions to Claudia Mitchell.

_____

_____

_____

CHECK 6	**THE - Ø**

***Ø** Technology can help a lot of amputees.*
***The** "bionic arm" technology is possible primarily because of two facts of amputation.*

*When **Ø** doctors amputate a limb, they don't remove all of the nerves.*
***The** doctors who invented that procedure enabled a real breakthrough.*

The = ……element Ø = ……..element

④ Complete with *THE* or *Ø*.

1. John went to _____ United States last year. He also visited _____ Canada
2. _____ Browns are our new neighbours. 3. ___ American children eat too much sugar.
4. Mary was a bad baby-sitter, but ____ children she looked after had a very healthy diet.
5. I love _____ dogs but I don't like _____ dogs that live next door. They are always barking! 6. I have just seen _____ latest movie by James Cameron.
7. _____ freedom is the best thing on Earth. 8. _____ Prince Charles will be a good King.
9. _____ boy sitting there is called Andrew. 10. I really like _____ President John M.
11. I don't like _____ vegetables. 12. On _____ Sundays, I sleep all day long.
13. _____ house we have just visited is the most beautiful.
14. _____ life is so wonderful! 15. _____ England is a very nice country

⑤ Complete with *THE*, *A*, *AN* or *Ø*.

ARTICLES
Keep Calm
page 66

1. I've just bought _____ book.
2. On _____ Monday, I will go to the supermarket
3. _____ President Bush is popular in the USA.

4. I don't like _____ chocolate.

5. _____ car in front of the house is a Ferrari.

6. Please give me _____ orange you've just brought.

7. _____ animal in the photo is called Dumbo.

8. Our zoo has just bought _____ elephant.

⑥ Scan these QR codes to get more training.

SCAN ME SCAN ME SCAN ME

CHECK 7 — RELATIVE PRONOUNS

Claudia Mitchell, **who** had her left arm amputated, can now grab a drawer pull with her prosthetic.
Claudia Mitchell, **whose** left arm was amputated, can now grab a drawer pull with her prosthetic.
The setup **which** / **that** makes this feat possible is almost as amazing as the results of the procedure.
Dr. Todd Kuiken developed the procedure, **which** he calls "targeted muscle reinnervation."
Surgeons dissect the shoulder to access the nerve endings **which / that** control the movements of arm joints.
When the nerve ending receives the signal, the chest muscle contracts.

Human antecedent

Sujet	COD	Complément de nom	Complément indirect
who *that*	*who / whom* *that* Ø	*whose*	Préposition + *who* *that* Ø

Non human antecedent

Sujet	COD	Complément de nom	Complément indirect
which *that*	*which* *that* Ø	*whose* *of which*	Préposition + *which* *that* Ø

⑦ Recap what you know about Claudia Mitchell with 2 sentences, using relative pronouns.

_____

_____

⑧ Complete with a relative pronoun (if needed). Give different answers when possible.

1. This is the boy …….had an accident.

2. Yesterday I saw a car …… was really old.

3. Mandy is the girl …… I met on Friday.

4. I haven't seen Frank,……brother is five, for a long time now.

5. The robber stole the car ……..the lady had parked in front of the supermarket.

6. This is the man ……house is on fire.

7. Can I talk to the girl …… is sitting on the bench?

8. The book …… you gave me is great.

9. She likes hamburgers …….. are hot.

10. Bill Clinton, ……..was President of the USA, has only one daughter.

RELATIVE PRONOUNS
Keep Calm page 62

⑨ Complete these sentences with a relative pronoun.

1/ That's the computer ……I'd like to buy.

2/ A webmaster is a person ……designs, develops and maintains a website.

3/ A bus is an electronic pathway ……..carries signals between computer devices.

4/ Here is the DVD ……you lent me!

5/ Last night I met someone ……works for GM as a software engineer.

6/ The computer ……screen is broken is on his desk.

⑩ Complete these sentences with a relative pronoun.

1. The Spanish language, _____ is my native tongue, is spoken in South America. 2. She likes the actor _____ plays Dracula.

3. This is the most difficult exercise _____ I have ever made.

4. Alexander Graham Bell, the man _____ invented the telephone, died in 1922.

5. Was she the woman _____ children died in a car accident?

6. Most teachers _____ work in this school are women.

7. The dress _____ you're wearing looks old-fashioned.

8. Switzerland, _____ is situated in the east of France, is famous for its chocolate.

9. Do you know the man _____ sons play football with Tom?

10. This magazine is for people _____ are keen on computing.

⑪ Scan these QR codes to get more training.

SCAN ME SCAN ME SCAN ME

# 14	THIBAULT

① **Listen to the audio** (→ 0'40)**, take notes and get ready to recap.**

https://youtu.be/TYF0kZlyeM8

SCAN ME

② **Read the text and get more information.**

French patient's breakthrough could lead to brain-controlled wheelchairs, say experts. Oct 2019

A French man paralysed in a nightclub accident **has walked** again thanks to a brain-controlled exoskeleton, providing hope to tetraplegics seeking to regain movement.

The patient **trained** for months, harnessing his brain signals to control a computer-simulated avatar to perform basic movements before using the robot device to walk. Scientists described the **trial** results as a **breakthrough**.

Doctors who conducted the trial said though the device was years away from being publicly available, it had the potential to improve patients' quality of life and autonomy.

The patient, identified only as Thibault, 28, from Lyon, said the technology had given him a new lease of life. Four years ago his life was permanently changed when he fell 40ft (12 metres) from a balcony, severing his **spinal cord** and leaving him paralysed from the shoulders down.

"When you are in my position, when you can't do anything with your body … I wanted to do something with my brain," Thibault said.

He trained using a video game avatar system to acquire the skills needed to operate the exoskeleton and had to relearn natural movements **from scratch**. "I can't go home tomorrow in my exoskeleton but I've got to a point where I can walk. I walk when I want and I stop when I want," Thibault said.

Cervical spinal cord injuries leave about 20% of patients paralysed in all four **limbs** and is the most severe injury of its kind.

Alim Louis Benabid, professor emeritus at Grenoble and lead author of the study published in the Lancet Neurology journal, said: "The brain is still capable of generating commands that would normally move the arms and legs, there's just nothing to **carry** them **out**."

A team of experts from Grenoble Alpes hospital, the biomedical company Cinatech and the CEA research centre began the procedure by implanting two recording devices either side of Thibault's head, between the brain and the skin. These read his sensorimotor cortex, which controls motor function.

Each decoder transmits brain signals, which are translated by an algorithm into the movements the patient has thought about. It is this system that sends the physical commands the exoskeleton executes.

Thibault used the avatar and video game to think about performing physical tasks such as walking and reaching out to touch objects. Using the avatar, video game and exoskeleton combined, he was able to cover the length of one and a half football pitches over the course of many sessions.

Several studies have used implants to stimulate patients' muscles but the Grenoble research is the first to use brain signals to control a robot exoskeleton.

Experts involved in the study said it could potentially lead to brain-controlled wheelchairs for paralysed patients. "This isn't about turning man into machine but about responding to a medical problem," said Benabid. "We're talking about 'repaired man', not 'augmented man'."

In a comment piece on the study, Tom Shakespeare, professor of disability research at the London School of Hygiene and Tropical Medicine, said the exoskeleton system was a long way from usable clinical possibility.

But Thibault said the trial offered a "message of hope to people like me … This is possible, even with our handicap."

https://www.theguardian.com/world/2019/oct/04/paralysed-man-walks-using-mind-controlled-exoskeleton?CMP=share_btn_fb&sfns=mo

③ Translate the words in grey.

④ Translate the sentence below.

Doctors who conducted the trial said though the device was years away from being publicly available, it had the potential to improve patients' quality of life and autonomy. (l. 6-7)

⑤ Watch these reports about Thibault.

https://youtu.be/1GyJBBB8O_M

SCAN ME

https://youtu.be/ojtOu8yNR4Q

SCAN ME

CHECK 8	COMPOUND ADJECTIVES
a **brain-controlled** exoskeleton → an exoskeleton which is controlled by the brain a **computer-simulated** avatar → an avatar which is simulated by a computer	

⑥ Create more adjectives.

1/ Electricity powers the car = it is a/an ……..car.

2/ Water cools the factory = it is a/an ……factory.

3/ These tomatoes dry with the sun = they are ……

COMPOUND ADJECTIVES Keep Calm page 78

CHECK 9	GENITIVE		
*The exoskeleton is controlled by **Thibault's head**.* *It can improve **patients' quality of life**.* *It is made to stimulate **children's muscles.*** ***James's prosthetics** is amazing.*			
Singular noun	**Singular noun ending with -s**	**Plural noun (exception)**	**Plural noun ending with -s**

⑦ Complete with a genitive (if needed)

1. Sarah is **Emily…….** aunt.
2. Let's meet at **Giovanni…….** for lunch.
3. This is our **boss……..** car.
4. Did you read **yesterday…….** newspaper?
5. These are our **friends**……cats.
6. Our grandparents live in an old **people…….** home.
7. That sandwich would not be to **everyone…….** taste.
8. My **cousin…….** dad is my uncle.
9. Where is the **ladies…….** shower?
10. **Jack**…… and **Joe**….. bag is black.
11. **Jack……** and **Joe…..** bags are black.
12. I haven't read **today** ……paper.

⑧ Scan the QR codes and get more training.

SCAN ME SCAN ME SCAN ME

CHECK 10	SIMPLE PAST – PRESENT PERFECT

*The patient **<u>trained</u>** for months, harnessing his brain signals to control a computer-simulated avatar to perform basic movements before using the robot device to walk.*

➔ **Simple past**: past action (often dated) which is finished / no connection to the present

*A French man paralysed in a nightclub accident **<u>has walked</u>** again thanks to a brain-controlled exoskeleton.*

➔ **Present perfect**: past action which has an impact/ a result on the present situation

⑨ Complete with the simple past or the present perfect.

I _____(know) Adrian for a very long time. We _____(be) friends since our first day at school, 30 years ago. He _____(come) around last night to ask for my advice. His company _____(do) very well over the last few years. They _____(open) several new offices. They _____(just / ask) Adrian to move to Scotland to run an office there. He _____(not/decide) what to do yet. He doesn't really want to move: he _____ (never/live) outside Manchester. He _____(buy) a house there last year. We _____(talk) about it for hours last night.

⑩ Scan these QR codes to get more training.

SCAN ME SCAN ME SCAN ME

LAB 2	HUGH HERR

① Watch the video in English (NO SUBTITLES) without taking any notes.

https://youtu.be/8AoRmlAZVTs

② Watch the video again and answer the questions below.

1/ Give the definition of 'bionics'

2/ Where does Hugh Herr work?

3/ What happened to him in 1982? Give details.

4/ What is he joking about?

5/ According to him, technology can:

-
-
-

6/ Herr doesn't see his artificial limbs as a ……but as a

……..

7/ What are the 4 main causes of disability in the US?

-
-
-
-

8/ What are his bionic limbs composed of?

9/ What is the mobile app used for?

10/ What will be the next step in bionic limbs?

11/ What are the only limits / boundaries of bionic limbs?

12/ Give two synonyms for **disabled**: ……/……..

③ Ask 5 questions to Hugh Herr.

1/ ……..

2/ ……..

3/ ……..

4/ ……..

5/ ……..

④ Writing. Hugh Herr has just written his autobiography. Write the preface to the book. Uses Check 5 to 9 and check the tenses.

# 15	PUSHING THE LIMITS

① Listen and take notes. *https://youtu.be/dFb5jClt72I*

② Watch the video and complete your notes. Get ready to recap.

LAB 3	10 EXOSKELETONS AND THEIR USES

① **Watch the video once <u>without taking any notes.</u>** https://youtu.be/GH3vVUUQDT4

② **Watch the video a second time. Pick out information to complete this chart.**

N°	devices	Who for?	What for? (possible uses/domains) Main characteristics
10	ReWalk		
9	Rex Robotics		
8	CSIC Child Exoskeleton	What does SMA stand for?	
7	PANASONIC NINJA PLN-31		
6	HYUNDAI "H legs"		Weight it can lift:
5	POWERED JACKET MK3		
4	KURATAS		Weight: Height: Speed:
3	XOS 2		
2	UWM LORICA	What does UWM stand for?	
1	AXON GAMING SUIT		

③ Classify the 10 exoskeletons presented in the video.

Medical purposes	Industrial purposes	Military purposes	Entertainment

④ You work for a billionaire who wants to invest money in exoskeletons.
Choose the exoskeleton you think the most suitable. List the pros and cons of this exosuit.
You can browse the web to find more information.

My exoskeleton:	
Pros (+)	**Cons (-)**

GIVE YOUR OPINION
This brochure
page 72

⑤ Read Check 15 page 72.
Complete this table with two expressions in each box.

Agreeing	Disagreeing
Countering an argument	**Giving an example**

⑥ DEBATE

4 groups (one per type of exoskeleton).
You work for a billionaire who wants to invest money in exoskeletons. Before meeting him/her, meet three of your colleagues (each one in favour of a different type of skeleton) and discuss the right choice, weighing the pros and cons of each choice. Prepare your arguments to convince them your exoskeleton is the best.

# 16	ARE YOU YOUR BODY?

① Watch this extract from the series Years and Years.
Explain Bethany's project. https://youtu.be/sfXV17TmLHs

SCAN ME

② Write a definition of transhumanism.

③ Read the text below.

Immortality or humanity?

There will always be a myriad of ways our mortal forms can go wrong. And we've seen that physiological constraints seem set to always hold us back from drastically extending our **lifespans** and remedying the **root cause** of ageing – if there even is one.

But on the border between science fiction and pioneering science rest exciting technological ideas that could perhaps unlock a different kind of immortality. Technology can already help us catch **age-related defects** early, but it holds the potential to become even better: what if we were able to **circumvent** biological **trade offs** entirely?

Billionaire Elon Musk's company Neuralink is already on the march to set us down this transhumanist path. It envisages a future where humans are far more intimately connected with their electronic devices than we are today. It invites us to work towards a brain-machine interface that would fundamentally integrate us with our technology, achieving a truly symbiotic relationship.

The research is still in its early stages, but brain-machine interfaces are already in use in the form of ear and eye implants that can restore our senses, and brain implants that allow **disabled people** to remotely control computers and robots. Neuralink aims to take this a step further by seamlessly connecting us to electronic devices, the internet and even other humans. Essentially, we'd all have encyclopaedic information **on hand** and be able to communicate with one another telepathically.

To make this remarkable enhancement possible, a brain-machine interface would be injected into our **bloodstream** and travel to the brain. There it would self-assemble into a **mesh-like structure** on the outside of the cerebral cortex, entwining technology to the core of our intelligence and **sentience**.

Despite the invasiveness of Neuralink's implants, there are already a host of healthy individuals who are eager for such artificial **enhancement**. Some have even gone so far as to perform surgery on themselves just to install a gadget of meagre real-world value. But this may be just the start.

Neuralink and the technology it inspires could become a gateway to a post-human future. Through research in this area, we may **decipher** the means to accurately translate our organic, chemical neuronal pathways into electronic data that could encapsulate them. And so we may, eventually, be able to capture our beings within a computer, living forever as digital memory accessed by a piece of software.

This might be an extreme solution to the question of how to live forever, but there are wealthy individuals, such as entrepreneur Dmitry Itskov, devoted to the idea of **merging with** a computer. Itskov's 2045 Initiative views brain-machine interfaces as just the first step in **a four-part journey** that culminates in an artificial brain housing a human personality that controls **a hologram-like avatar**.

Itskov and other futurists are promising immortality, but to attain it we'll have to make possibly the biggest trade off of them all, giving away one of our most precious and defining gifts: our human form. The organic brain has forever been the vessel of our soul. An artificial copy may go as far as capturing your entire network of 100 trillion connections, but would it truly be you?

It's a deep question, but our transcendence (or just divergence) away from organic matter means that we may well cease to be human as we know it. Concerns that humans have been warring over for millennia – resources, wealth, mates – could cease to be important. Physical pleasures that have been fundamental to our experience – intimacy, excitement, music, food – might be replaced by virtual signals and synthetic stimulants.

Or at least for some. The rest of us who can't afford to become immortal avatars will be left to battle over these now trivial **concerns**, while the wealthy post-humans drift above for eternity.

These endeavours are an example of science, presumably driven not so much by a desire for greater understanding of the universe or the betterment of humanity, as by personal profit and individual gain.

Whether we will ever find a way to overcome the physiological trade offs that hold back immortality, or whether we will really be able to replicate human consciousness in a computer are questions too difficult for us yet to answer. But are those leading the charge against death at least inspiring us to lead healthy lives, or are they simply rallying against an inevitable fate?

https://theconversation.com/silicon-valleys-quest-for-immortality-and-its-worrying-sacrifices-

④ **Write sentences to answer these questions.**

1) What seems to be one of humanity's biggest preoccupations?

2) What do you know about Elon Musk?

3) What is his new project about?

4) What is entrepreneur Itskov's project?

⑤ **List 10 words / expressions about science improvement you will remember.**

CHECK 11	**CONDITIONAL**

First conditional*: If science* ***helps*** *people, they* ***will*** *live longer.*

➔ Possible situation in the future. (**present / WILL + infinitive**)

Second conditional*: If I* ***merged*** *with a computer, I* ***would*** *live forever.*

➔ Hypothetical / unlikely situation now or in the future. (**past / WOULD + infinitive**)

Third conditional*: If my friend* ***had merged*** *with a computer, she* ***would have been*** *with me today.*

➔ Imaginary situation that didn't happen. (**past perfect / WOULD + HAVE + past participle**)

CONDITIONAL
Keep Calm
Page 48

⑥ **Complete with the correct form of the conditional.**

1.(First conditional) If we _____ (not / work) harder, we _____ (not pass) the exam.

2. (Third conditional) If the students _____ (not be) late for the exam, they _____ (pass).

3. (Second conditional) If she _____ (have) her laptop with her, she _____ (email) me.

⑦ **Complete the sentences. Use could or could have + a suitable verb.**

1 A: What shall we do this evening?
B: I don't mind. We could go to the cinema.
2 A: I spent a very boring evening at home yesterday.
B: Why did you stay at home? You _____ out with us.
3 A: Have you seen this job advertised in the paper? You _____ for it.
B: What sort of job? Show me the advertisement.
4 A: How was your exam? Was it difficult?
B: It wasn't so bad. It _____ worse.
5 A: I got very wet walking home in the rain last night.
B: Why did you walk? You _____ a taxi.
6 A: Where shall we meet tomorrow?
B: Well, I _____ to your house if you like.

⑧ **Finish these sentences with the correct form of the conditional.**

1/ If it is sunny tomorrow _____

2/ If I were you _____

3/ If I were the Prime Minister _____

4/ If she had studied harder _____

5/ If I won the lottery _____

6/ If I hadn't gone to bed so late _____

⑨ **Complete with the correct verbal form.**

1. If he _____ (stay) in London, he would have found a new girlfriend
2. He would do more to help the poor if he _____ (be) the Pope.
3. If he goes to London on a business trip, he often _____ (visit) Soho.
4. We won't go to the cinema unless they _____ (arrive) in the next 5 minutes.
5. She _____ (buy) a new car if she had had the money.
6. If Karen were me, she _____ (go) to Birmingham immediately.
7. They will talk to Terry if he _____ (come).
8. Joanna comes to work 30 minutes late if her child _____ (miss) the bus to school.
9. If Paul _____ (think) twice, he wouldn't have made such a stupid mistake.
10. Rachel _____ (become) a university lawyer if she studies hard.
11. Unless you _____ (hurry up), we will never arrive on time.
12. He _____ (have) accidents if he drove more carefully.
13. He takes his daughter out to dinner, if she _____ (come) to town. 14. If I hadn't known better, I _____ (trust) him.

⑩ Scan these QR codes to get more training.

SCAN ME SCAN ME SCAN ME

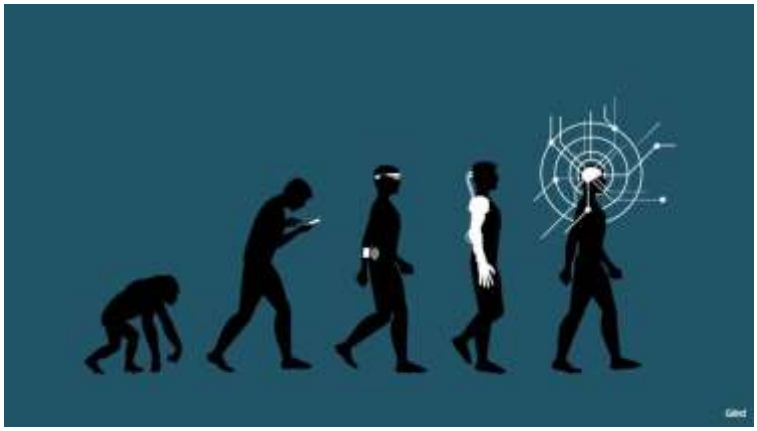
⑪ Role play: Get ready to talk!

4 students: 2 parents / 2 children Your son / daughter wants to merge with a computer. Discuss the project.	**4 students:** You are part of Elon Musk's ethical committee. Discuss the limits of Neuralink project and the idea of merging men and computers.

⑫ Watch this TEDEd. Write down the main ideas. Get ready to recap.

How close are we to uploading our minds? https://youtu.be/2DWnvx1NYUA

SCAN ME



⑬ Find the opposite of the following words by transforming them. (ex: realistic ≠ unrealistic / doubtful ≠ doubtless)

careful ≠ ..... safe ≠ ..... useful ≠ ..... fair ≠ .....

legitimate ≠ ..... ability ≠ ..... healthy ≠ ..... connect ≠ .....

ethical ≠ ..... legal ≠ ..... expected ≠ ..... utopian ≠ .....

balance ≠ ..... lock ≠ ..... usual ≠ ..... powerless ≠ .....

hopeful ≠ ..... upload ≠ ..... harmful ≠ ..... familiar ≠ .....

⑭ Write the words below next to the corresponding definition.

enhance / unethical / wealthy / reluctant / consent / weaken / thrive / invasive /microchip

1. not morally correct : .....
2. develop, grow or be successful : .....
3. not willing to do something : .....
4. further improve the quality of something : .....
5. a small piece of semiconductor that contains extremely small electronic circuits and devices: a .....
6. having a great deal of money, resources or assets : .....
7. threatening your privacy and difficult to stop : .....
8. permission for something to happen or agreement to do something : .....

⑮ Choose the right words to complete the sentences below.

concern/ invasive / overpopulation / data / handy / employees / employers / divisive /afford / company / privacy / widen

1. In this hi-tech ....., many ..... were implanted with a chip. One the one hand, many among them are thrilled because this piece of technology is ..... . On the other hand, some people believe it is ..... because ..... can collect ..... and it infringes upon their ..... .
2. Transhumanism has always been a ..... subject, owing to the massive implications it has for our entire way of life and the fact that it will impact on nearly every aspect of human existence. Indeed many people think it will ..... social inequalities as not everybody may be able to ..... to enhance their physical and mental capacities. Another cause for ..... with the extension of life expectancy is ..... .

LAB 4	COULD WE GET ROBOTIC BODIES?

① Watch the video with no subtitles and answer the question below.

https://youtu.be/A1w-D7I7Wpg

1/ What is a prosthesis?

2/ What are today's prostheses made of?

3/ Prosthetics could be used for body ……..and body……

4/ What are body-controlled prosthetics?

5/ What could eradicate disability?

6/ What is the phantom limb symptom? What can that result in?

7/ What could people do with body-enhancing prosthetics?

② List the pros and cons of enhanced bodies.

PROS	CONS

③ Read Check 16 Connecting your ideas on page 73. Choose the correct connecting words to connect and contrast some of your ideas.

……

……

……

……

……

④ Write an essay!
Comment on the following sentence: *'Should we get robotic bodies?'*

➔ List the pros and cons
➔ Get ready to give your opinion
➔ Complete the following outline before writing your essay on a separate sheet of paper
➔ Use Check 17 page 74 to get some help
➔ Hand it out to your teacher for correction

Introduction (key element = striking fact / quote = question / plan)

……

……

……

……

……

……

Part 1: ……

Idea 1 / example(s) ……..……..

……

……

Idea 2 / example(s) ……

……

……

Part 2: ……

Idea 1 / example(s) ……

……..

……

Idea 2 / example(s) ……..

……

……

Conclusion

……

……..

……

……

……

……

WRITING AN ESSAY
Page 74

CONNECTING YOUR IDEAS
Page 73

PART 3

ROBOTICS

# 17	ISAAC ASIMOV'S 3 LAWS OF ROBOTICS

① American science fiction author **Isaac Asimov** was the first to coin the word 'robotics'. He wrote a set of 3 rules, introduced in his 1942 short story "Runaround" (included in the 1950 collection *I, Robot*). Listen to him and write down his **3 laws of robotics.**

➢

➢

➢

② Watch the video and check your answer. https://youtu.be/AWJJnQybZlk

# 18	THE FIRST INDUSTRIAL ROBOT

① Watch the video and get information about the *Unimate*, the first industrial robot.

https://youtu.be/-Xl2c91pWGc

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Date:

Inventor:
Date of the patent:

Possible movements it could perform:

Actions it performed:

Place it was used:

Difference between automation and robotics:

② Read the text below and get more information.

Revolutionizing manufacturing the world over, the Unimate was the very first industrial robot. Conceived from a design for a mechanical arm **patented** in 1954 (granted in 1961) by American inventor George Devol, the Unimate was developed as a result of the **foresight** and business **acumen** of Joseph Engelberger - the Father of Robotics.

At a cocktail party in 1956, Joseph Engelberger met inventor George Devol and the two got to talking about George's **latest** invention - his Programmed Article Transfer device. "Sounds like a robot to me," exclaimed Engelberger, who had a deep fascination with robots as a result of his love for writer Isaac Asimov's science fiction stories.

In 1957, Engelberger, who at the time was director of Consolidated Controls Corp. (Condec subsidiary) located in Bethel, Connecticut, convinced Condec's CEO to finance the development of Devol's invention. After almost two years in development, Engelberger and Devol produced a prototype - the Unimate #001.

By 1961, the unimate 1900 series became the first mass produced robotic arm for factory automation.

Mindful of the **uphill battle** he would face from manufacturers, and motivated by Asimov's Three Laws of Robotics that relate a "first do no harm" philosophy similar to the Hippocratic Oath, Engelberger focused on employing the robots in tasks **harmful** to humans. His strategy worked and in 1959 the 2,700 pound Unimate #001 prototype was installed on an **assembly line** for the first time at a General Motors ***diecasting***[1] **plant** in Trenton, New Jersey. By 1961, the Unimate 1900 series became the first mass produced robotic arm for factory automation. In a very short period of time, approximately 450 Unimate robotic arms were employed in diecasting.

[1] *moulé sous pression*

In 1961 Engelberger established Unimation, Inc., a Condec Corp. company in Danbury, Connecticut, to develop the business in the newly established robotics industry he created. That same year, Engelberger introduced the Unimate 1900 to the public at a trade show at Chicago's Cow Palace. In 1966, television audiences around the world got to see the robot for the first time as Johnny Carson welcomed the Unimate on the Tonight Show. In this live broadcast from NBC Studios in New York City, Engelberger had the robot perform several tricks to **wow** viewers, including knocking a golf ball into a cup, pouring a beer, and conducting the Tonight Show band.

By 1966 Engelberger sought to **broaden** the customer base outside of the United States. He licensed Nokia of Finland to manufacture the robots in Scandinavia and Eastern Europe. After an invitation to speak to 400 Japanese executives in Tokyo who were interested in robotics for manufacturing, Engelberger signed a licensing agreement in 1969 with Kawasaki Heavy Industries (now Kawasaki Robotics) to manufacture and market the Unimate robots for the Asian market.

On this side of the pond, General Motors had jumped ahead of its competition to become the most automated automotive plant in the world. In 1969, it rebuilt its Lordstown, Ohio plant installing Unimate spot welding robots. Capable of production speed never before achieved, the robots built 110 cars per hour - more than double the rate of any automotive plant in existence at the time! With the help of the Unimate, GM revolutionized the automotive industry. The Europeans were quick to follow suit and companies like BMW, Volvo, Mercedes Benz, British Leyland, and Fiat installed Unimate robotic arms to perform jobs that were unpleasant and dangerous for humans, a robot benefit very important to Engelberger.

From a two-dimensional drawing to an industrial and societal revolution, the Unimate robot remains one of the most significant contributions in the past one hundred years not only to manufacturing but to civilization. It has left a living legacy in an industry to which it gave birth. As a result of the Unimate, the field of robotics continues to expand **beyond** manufacturing to virtually every facet of human life and service.

https://www.robotics.org/joseph-engelberger/unimate.cfm

③ Translate the words in grey.

④ Ask 5 questions to Joseph Engelberger - the Father of Robotics.

1/ _____

2/ _____

3/ _____

4/ _____

5/ _____

⑤ Write a paragraph to sum up what you have learnt about the first robot. Use relative pronouns.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

# 19	INDUSTRIAL ROBOTS

① Listen to the audio and complete the information below.

a) Industrial sector robots are used in:
   -
   -
   -
   -

b) In 2015 :

Number of robots sold :

c) Country which buys the highest number of robots :

d) Biggest sector :

e) Largest robot manufacturer in the world :

f) What are collaborative robots ?

② Get ready to recap.

# 20	10 POPULAR INDUSTRIAL ROBOT APPLICATIONS

① List the industrial robot applications you know.

② Scan the QR code, watch the video, check your answers and complete the list.

https://youtu.be/lR7c2rEFOH0

③ Use an online dictionary to check their meaning.

LAB 5	THE RISE OF ROBOTS

① **Watch Video 1: *The History of Robots* (CES 2016).** https://youtu.be/2GxbXcPGhDg

List:

- elements on the origin of robots:

- the different types of robots:

- the different fields they are used in:

- people's reactions about robots and their causes:

② Watch Video 2: ***Top 5 industrial robots you must see*** and take notes on the different specifications and uses of 4 of these robots.

https://youtu.be/neWc5I9IdQ4

IRB 1660 ID ABB	

KR AGILUS KUKA	
DAIHEN SyncroFeed	
YRM12 YASKAWA	

③ Watch Video 3: an interview of Ameca. List her specifications. What can she do?
How do you feel watching her ? https://youtu.be/fHYOXjP4gfE

SCAN ME

# 21	PRESS REVIEW – TRENDS 2022

① Students A to D. Read your text. Share what you have understood with other students with the same text.

② Make groups with students A, B, C and D. Each student presents his / her text. Take notes.

③ In groups. Write an article about the 2021 trends in robotics. Go to your Keep Calm brochure on eCampus and check the most common mistakes (pages 88 and 89). Proofread your text before handing it out to your teacher.

22 SHOULD WE FEAR THE RISE OF THE ROBOTS?

① **Read the text below and check the vocabulary you don't know.**

Since the oldest times people have sought for ways to save them from hard physical work and menial activities. To find solutions they have invented new tools, domesticated animals, and created new machines. As new technological innovations were created, people quickly adopted them and assimilated them into their lives. While many of them understood that technology brings them new opportunities to improve their living standards and to grow their wealth, many others have started to fear what would happen once the robots will reach a certain level of intelligence.
Many experts across different fields are sharing with the public their concern over the rise of intelligent robots. Their fears seem valid, but it's important to state from the beginning that they've decided to voice their opinions not to prohibit technology, but to improve it.
Here are some of the reasons why people fear the rise of robots.

People are afraid of the unknown
The fact is that most of the people are afraid to adopt or try new things. The reasons for doing it are various, but the result is the same, many people prefer to choose the thing that is familiar, the one they know how to use. And where do you count that there are also people who are actively operating to discourage change?
If until a few years ago, people were more than happy to try the latest solutions that helped them ease their work, nowadays they prefer to stay away from multiple technological advancements because they consider a threat to their wellbeing.
But there is always a tipping point and people are driven from resistance to acceptance because they understand the advantages they would benefit from if they would choose the new unknown thing.

People don't like interacting with robots
Do you know what the Turing test implies? In 1950, Alan Turing established the benchmark for AI, if people are interacting with robots in conversation, and they cannot distinguish them from persons, they have to admit that the machines are capable of true intelligence.
No one could doubt people were dealing with machines when they had the first interactions, but in the present times when people can talk to their mobile phones via programs like Siri, they are no longer sure if they can distinguish them from persons.
Now people are having difficulties to integrate robots and AI into their lives because they no longer feel comfortable to interact with robots. It remains to be seen if people will see robots as part of their life, and they will decide to accept their presence or if they will continue to be frightened of machines.
Only because a thing does not make us feel comfortable it doesn't mean it's not good for us. No one can deny the incomparable advantages technology integration brings to both individuals and companies. By using machines, businesses are able to improve their business effectiveness and to protect their employees from hazardous activities. They count on robot software to create and control machines that help them grow their businesses without posing risks to the human workforce and the surrounding environment.

Fiction and movies were not kind to AI and robots
How did people create robots a bad image? The depictions of the media had an important role in influencing their impression. Westworld, Alien, Matrix, and Ex Machina are only some of the movies that showed how things can go wrong if robots gain intelligence. From the earliest depictions of robots in science fiction the message was the same, robots have a single purpose to dominate the world.
Ex Machina is a movie that follows a programmer who goes into his CEO house to perform the Turing test to an intelligent humanoid robot. The end of the movie shows a robot using artificial skin to take a full-human appearance, leaving the programmer trapped inside the house to die.

All movies and fiction materials make us wonder if robots will one day expect to have equal rights. Instead of making people feel afraid of using technology, movies and fiction should be used to show the positive part of the rise of robots. If they are carefully programmed, they will help the human kind reach a new level of wellbeing.

People are afraid that robots will take their jobs away

More and more people feel this immediate fear. For example, in the automotive industry, robots are used to assemble cars, but it doesn't mean that no human is working on the premises. Humans have other tasks to accomplish, they no longer complete the jobs that would pose danger to their life, they are supervising the robots making sure they are 100% efficient. AI may threaten some jobs, but it leads to the growth and rise of others.

People should not be afraid of intelligent robots, but of the stupid AI, the one that is created without considering the consequences. It's imperative to invest in developing new technologies to help the human kind evolve.

Stuart Russel states that the problem with robots is not their consciousness, but their competences. Sometimes when creating a machine people forget that when you build an incredibly competent robot at achieving its objectives, it will do anything to accomplish them, no matter if this implies causing an accident. It's important to develop technology that has the role to protect human lives and to support people in their actions.

People are afraid of the Uncanny Valley

It looks like human-like robots are the ones that generate the greatest fear among people. The perception gained the name Uncanny Valley and it describes the situation when people feel uncomfortable with the human-like traits of robots. They are not experiencing fear of robots, but fear of the robots that look like humans, the ones that are able to mimic a person.

It's not fully understood what makes people feel repulsion towards the human-like robots, but it's definitely something they will get used to. It's the normal evolution of the human kind if they are exposed a long period to a certain stimulus they get accustomed to it and consider it their new reality.

https://www.techzone360.com/topics/techzone/articles/2019/05/24/442277-should-we-fear-rise-the-robots.htm

② List the pros and cons about robots.

Pros	Cons

③ Watch this video. Take notes and write a short biography of Alan Turing.

https://youtu.be/MidJR581irA

SCAN ME

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④ Watch the video and write a few lines to present the Turing test.

https://youtu.be/3wLqsRLvV-c

SCAN ME

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CHECK 12	QUANTIFIERS	
	Countable nouns (plural)	Uncountable nouns (singular)
Du, de la, des	……people	……software
Aucun	……people	……software
Beaucoup	……people	……software
De + en +	……engineers	……information
De – en –	……jobs	…… light
Tellement	……accidents	……hope
Trop	……robots	…… advice
Combien ?	…… times	……time
Autant de	…… inventions ……	…… humanity ……
Quelques / (Un) peu de	…… ideas	…… money

④ Complete with a correct quantifier: some – any - much – many – (a) little – (a) few

1. There weren't ……car parks available in the centre of London. I had to drive back home and get on the bus !
2. Liverpool has …….. great clubs.
3. Eating out is expensive here. There aren't …….. cheap restaurants. We only found 2 but they were full.
4. Hurry up ! We only have …… time before the train leaves.
5. We met so ……nice people when we went to Austria.
6. It's very quiet. There aren't ……people here today.
7. There isn't ……information in this book. I shouldn't have bought it !
8. Hurry up ! I haven't got ……time ! Just 2 minutes. No more.
9. He won't get a high salary this month. He only did ……. extra hours.
10. ……..children play outdoors nowadays. They spend their time on their screens.
11. The Queen has …… power in the Commonwealth.
12. If you find ……information on the subject, call me. Everything will be useful !
13. There's barely …….. chocolate left !

QUANTITIES
Keep Calm
Page 74

⑤ Translate into English.

1. Les ingénieurs américains inventent beaucoup de robots mais peu de robots peuvent marcher.

2. De plus en plus de personnes sont fascinés par les robots. Ils sont de moins en moins effrayants.

3. Quelques films montrent les robots comme des êtres utiles et sympathiques.

4. Il n'y a pas de robot dans mon école car il y a peu de professeurs qui veulent les utiliser.

5. Tom a beaucoup d'argent mais peu d'amis.

⑥ Scan these QR codes to get more training.

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CHECK 13	SIMPLE PAST – PRESENT PERFECT

In 1950, Alan Turing **established** the benchmark for AI.
As new technological innovations **were created**, people quickly **adopted** them and **assimilated** them into their lives.

➔ **Simple past**

Since the oldest times people **have sought** for ways to save them from hard physical work.
They **have invented** new tools, **domesticated** animals, and **created** new machines.

➔ **Present perfect** **have + past participle**

⑦ **Complete with the correct tense**.

1. My uncle _____ (go) on a trip to Egypt three years ago.
2. Roy _____ (finish-just) repairing the washing-machine, you can use it now.
3. His worst memory: when he _____ (have) to swim in the North Sea.
4. When I was a child I _____ (believe) in ghosts.
5. Last year, we _____ (visit) the British Museum.
6. What is the most frightening experience _____ (you-have-ever) ?
7. Many students in my class _____ (travel-already) abroad.
8. I _____ (steal-never) anything in my life.

CHECK 14	ACTIVE VOICE – PASSIVE VOICE

Active voice: In 1950, Alan Turing **established** the benchmark for AI.

➔ Focus on the subject which performs the action

Passive voice: The benchmark for AI **was established** by Alan Turing.

Be + past participle

➔ Focus on the element which is being acted upon by the verb (the sentence is flipped)

⑧ **Turn these sentences into the passive voice.**

1. The puppy chewed the bone. >>The bone _____ by the puppy.
2. The president keeps a copy of the letter. >>A copy of the letter _____ by the president.
3. Heidi has offered Patrick a credit card. >> Patrick _____

   >>A credit card _____
4. Mrs. Watson was cleaning the house all day. >>The house _____
5. She will receive the parcel. >>The parcel _____
6. Jane is parking the car in our driveway. The car _____
7. They should have grown rice. Rice _____
8. You must respect your elders. Elders _____.
9. I have to finish this work. This work _____.

LAB 6	CAN ROBOTS REPLACE HUMANS?

① **Watch the following videos on Youtube and take notes.**

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***If robots can replace humans*.** Katrina Wong
https://youtu.be/picLA5YjNnk

SCAN ME

Will robots replace humans and take our jobs?
https://youtu.be/AmXg-jB_D-s

Will automation take away all our jobs? David Autor
https://youtu.be/th3nnEpITz0

Will robots take our jobs ? BBC Click
https://youtu.be/nSjLzte1_ps

② List the pros and cons of developing robots.

Pros	Cons

③ Look at 'Giving your opinion' on page 72 of this brochure. Highlight 10 expressions you are not familiar with. Get ready to use them.

④ Class debate. *Robots : fear or fascination ? Should there be limits to their development ?*
Stand up and get ready to give your opinion. You can sit down only when you have spoken once. Use one of the ten expressions you have selected in ③.

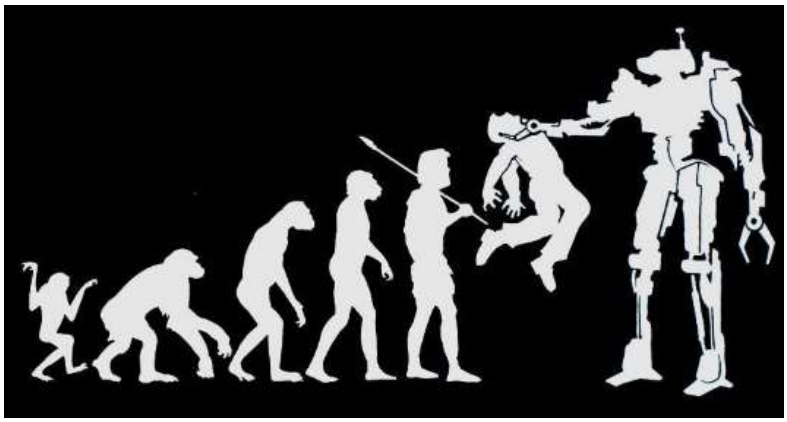
⑤ In groups. Role play.

The boss of a famous industrial company wants to introduce industrial automation.
An engineer comes and presents his brand new automative robot.
Choose your role and prepare your arguments. Get ready to discuss and give your point of view.

Role A : the 65-year old boss of the company
Role B : an employee who has been working on the assembly line for more than 30 years
Role C : an engineer selling industrial robots
Role D : a union delegate, working in the company, who wants to defend all the employees
Role E : a young engineer who has just arrived in the company and has many ideas about developing the business

Make 5 groups. Each group picks a role and prepare some arguments.
One student from each group is going to be chosen for the role play.

⑥ **In groups. Look at these 2 illustrations. Choose one of them for the the cover of your new novel about robots. Write the back cover for the book (blurb + opinion of some media).**



⑦ **Watch more about Best Robots 2022.**
https://youtu.be/z7SfUB-WOD0

SCAN ME

# 23	PREPARE A 3-MINUTE PODCAST

You work for **BBC Inside Science**.

Record your next podcast entitled **'Science: for better or for worse'**

- List the positive and negative elements you want to focus on
- Illustrate your points with examples from this brochure, from the net or from the news
- Browse the web to get precise figures, striking news
- Give your opinion (Check 15 page 70)
- Write down notes to help you recap orally and comment
- Don't write and read a text
- Check the pronunciation of the words you are not sure about on *Wordreference.com*
- Listen to the podcast below to understand how you need to sound **https://www.bbc.co.uk/sounds/play/p04wsf5h**
- Make your podcast lively: jingles / guests / interviews / invitations to like and share on social media…
- When you are ready, record your podcast and drop it on eCampus before ……/……./……..!

SCAN ME

CHECK 15	GIVING YOUR OPINION

Getting started	To begin with, I'd like to point out that… As a matter of fact,… First of all, I would like to say that… All right, to start with…
Expressing your opinion	In my opinion,… In my eyes,… To my mind,… From my point of view, … Speaking personally,… As for me,…/ (As) to me,… My view / opinion / belief / impression / conviction is that… My own feeling on the subject is that… As far as I'm concerned... I would say that… It seems to me that… I have the feeling that… I am sure / certain that … I have no doubt that… As far as I know… I hold the opinion that… I guess that… I think / consider / find / feel / believe / supppose / presume / assume that…
Agreeing	I agree with you / him / this person / this statement… I couldn't agree more! You are quite right / absolutely right. I share your view I have no objection. I approve of it. How true! It's true. That's right. Exactly! That's just it! Fair enough! Sure! Quite so! Just so! Yes, of course!
Countering an argument	Contrary to you… On the contrary … However,…. Unlike you, I think that…. Although I *+ verb* In spite of / despite *+ noun*
Disagreeing	I don't agree with you / him / this quote / what you say. I disagree. I don't think so. You're / he's wrong. I think otherwise. I don't think that's right. I take a different view. Nonsense! Rubbish! I am afraid that is not true. Not at all! You can't be serious! I don't share his / her / your view. You must be joking! / kidding!
Checking it has been understood	Did you get my point? Is that clear? Did you see what I mean? Does it make sense?
Saying it is not clear	I'm sorry I didn't hear what you said/meant. Pardon? Can you repeat? Would you mind repeating what you said? May I interrupt you? Excuse me, what did you say?
Giving yourself time to think	Well… I mean … Um… So… Er… Hang on… Let me think… Mind you… Okay… Actually, what I mean is… Well, how could I say that… Well, you see / you know… As a matter of fact… It's obvious that… I'm trying to say that.. Anyway… You see / know… I'll tell you what… So, if I understand correctly, you mean that… Now, wait a minute..
Giving an example	For example… For instance… That is to say… Let me give you an example.
Adding an idea	What's more… Besides…. By the way… On top of that… In addition…. I'd also like to say that… I'd like to add that… I'd like to make another point…
Organising your ideas	At first sight,… On second thought… On the one hand … on the other hand… First… Second….. Then…. Third… Lastly / Finally… In conclusion…. In short… To sum up….

SCAN ME SCAN ME

CHECK 16	CONNECTING YOUR IDEAS

La cause	La conséquence
Because = parce que **Because of / Due to / Owing to** = en raison de **For** = car **Since** = puisque **As** = comme **Thanks to** = grâce à **Given that** = étant donné que **In order to** = afin de **So as to** = de façon à ce que **This is because** = c'est parce que **This is the reason why** = c'est la raison pour laquelle	**Consequently / as a consequence** = par conséquent **In consequence** = en conséquence **Accordingly** = ainsi **Therefore** = donc **Thus** = ainsi **As a result (of)** = en conséquence (de) **So much so that** = de telle sorte que **That is why** = c'est pourquoi **For this reason** = pour cette raison **So as to** = pour que **Hence** = d'où
L'addition	**L'opposition**
Furthermore / moreover = de plus **In addition** = de surcroît **Besides** = en outre **Also** = Aussi **Similarly** = de la même façon	**Instead of** = au lieu de **Nevertheless** = toutefois **Otherwise** = autrement **Whereas** = alors que **While** = tandis que **Unlike** = à la différence de, contrairement à **Yet,** = pourtant **However** = cependant **By contrast** = par opposition **Contrary to** = contrairement **On the contrary** = au contraire **Despite** = malgré **In comparison** = en comparaison **In spite of** = malgré le fait que **But** = mais **On the one hand …. On the other** hand = d'une part …. d'autre part
Illustrer ses propos	
In fact = en fait **Actually** = en fait, effectivement **For example** = par example **Such as** = tel que **Like** = comme **Above all** = surtout	
Commencer une discussion	**Résumer une situation**
To begin with = pour commencer **First of all** = tout d'abord **First and foremost** = en premier lieu **Firstly** = premièrement	**To sum up** = pour résumer **On the whole** = dans l'ensemble **Finally** = finalement **Eventually** = finalement **To conclude**= pour conclure **At last** = au final

Check this spidergram:

More online exercises

CHECK 17	WRITING AN ESSAY

① Writing an introduction

→ Introduce the subject (striking facts / figures, key elements, current issues, ...)

→ Explain the aim of the essay (ask a question you will answer in the body of your paper)

→ Indicate the structure of your essay, present your different parts / the outline

- *- It is generally agreed that … / It is a well-known fact that….*
- *We may wonder whether / To what extent…*
- *We must weigh the pros and cons about…*
- *After dealing with…, we will tackle the issue of…*
- *First we will comment on…, then we will see…*

② Developing your ideas : the body of your essay should be composed of 2 (or 3) parts.

Organizing different parts

- *To begin with / First(ly) / First of all / In the first place / First and foremost…*
- *Then / Next / Secondly / Thirdly…*
- *Lastly / Finally / Eventually, / Last but not least…*

Illustrating your ideas / Giving examples

For example / For instance / …namely / …that is to say / Let's take an example / …, such as… /

Adding an argument

- *Indeed,… / Moreover / Furthermore / In addition / Besides / On top of that,*
- *Similarly / Likewise*

Reformulating your ideas

In other words / To say it differently

Contrasting your ideas / Giving a counter-argument

- *However/ Nevertheless / Yet, we have to keep in mind that…*
- *On the one hand…on the other hand / While that may be true…*
- *Up to a certain point / To some degree / To some extent,… / Although / Even if…*

Expressing yourself / Giving your opinion

- *As for me / I am convinced that / In my view / In my opinion / To my mind / It seems to me that*
- *I (totally) agree with / I (strongly) disagree with*
- *I approve of / I disapprove of*
- *I believe that*

③ Writing a conclusion

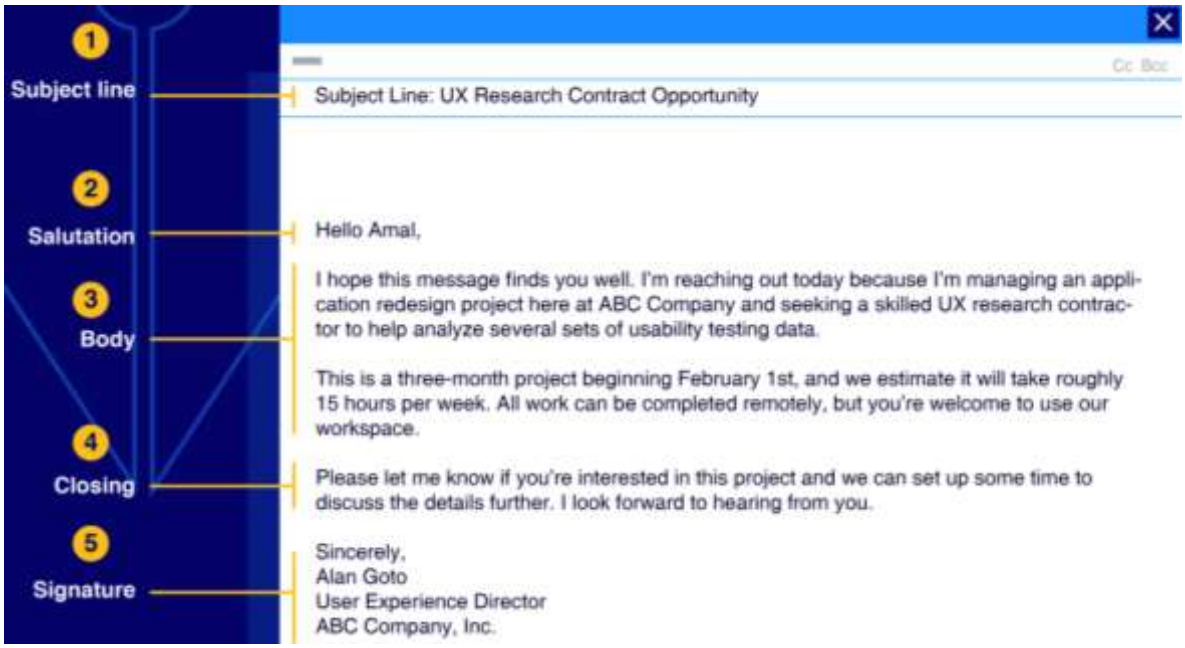
→ Sum up your arguments

→ Answer the question you have asked in your introduction

→ Ask another question to widen the subject

In conclusion / To conclude / To sum (it) up / To put it in a nutshell / All in all / All things considered…

CHECK 18	WRITING AN EMAIL



COMPOSITION	
Subject line	**Very important – you want the email to be opened !** *Meeting date change / Questions about the conference / Can you meet on Monday ? / Suggestion for your presentation*
Salutation	**Unformal**: *Hello… / Dear…* + first name, *Hi*…+ first name, (really unformal) *Good morning / Good afternoon,* **Formal**: *Dear Sir or Madam (you don't have the name)*, *Dear Mr.* + last name */ Dear Mrs.* + last name */ Dear Ms.* + last name,
Body **Closing**	**KISS : Keep it short and simple !** *I'm writing this email to express my dissatisfaction / to complain about / in response to your ad, your request / in regard to..* *I would be grateful if you could + infinitive. / I would like to + infinitive / I'd like to enquire about…* *We would like to apologize for any inconvenience caused.* *Please accept our apologies for the delay / for the problem caused.* *Thank you so much for answering… / Thanks for your email.* *If you have any further questions, please contact…*
Signature	**Unformal**: *Thanks, Cheers, Talk soon, Take care,…* **Formal**: *Thank you for your time, I look forward to hearing from you, Best, Regards, Sincerely, Sincerely Yours, Thanks so much, All the best, Best wishes, Respectfully,…*

Six steps for writing professional emails	
1. Identify your goal : what do you want the recipient to do after they've read it ?	
2. Consider your audience.	3. Keep it concise.
4. Proofread your email.	5. Use proper etiquette.
6. Remember to follow up.	7. Subject line.
8. Salutation.	9. Use Cc / Cci if needed

CHECK 19	TALKING ABOUT YOU TALKING ABOUT WHAT YOU LIKE

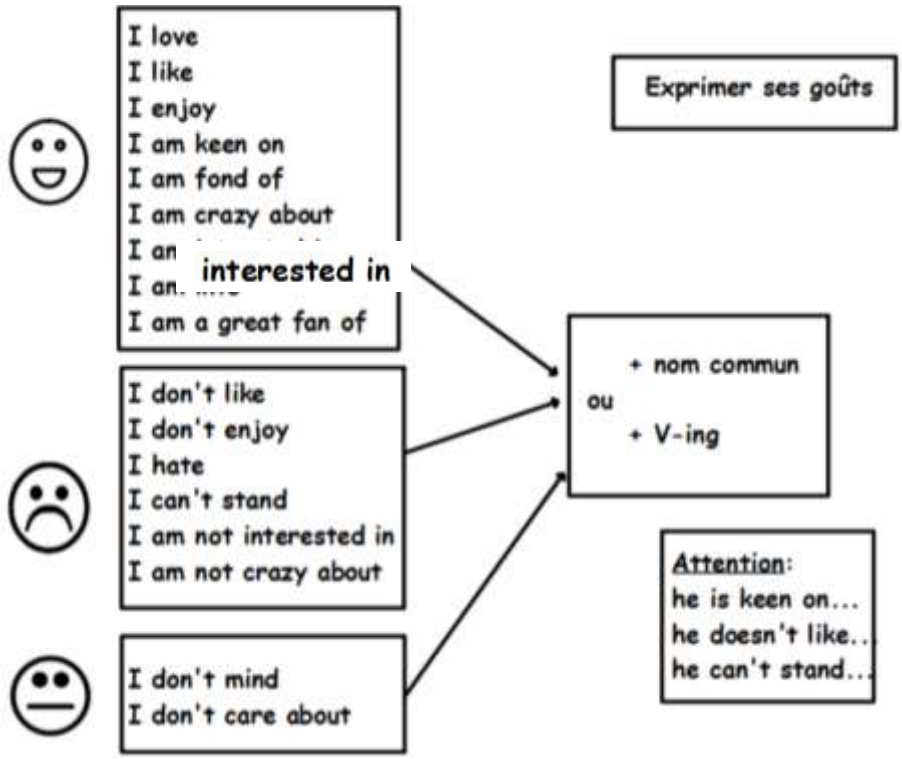
① Who are you?

I am French / 23 years old / doing a master's degree in industrial engineering at the University of Evry / in Evry …
I live in Evry / with my stepfather and my mother / with roommates / on my own / …
I have 2 sisters / a small flat / …
I study science and maths. **I graduated** last year.
I have been studying at Pelvoux **since 2018 / for 3 years.** Before I **was studying** in Lyon.

② What are you like? What type of person are you?

Academic *(doué pour les études)* Adaptable Adventurous Aggressive Ambitious Artistic Athletic Boastful *(vantard)* Bold *(courageux)* Brave Careful Caring *(attentionné)* Confident *(sûr de soi)*	Determined Dynamic Efficient Emotional Flexible Friendly Funny/fun Generous Hard-working Jaded *(blasé)* Kind Learned /id/ *(érudit)* Loyal	Motivated Open-minded Optimistic Organized Patient Polite Positive Quiet Reliable *(fiable)* Reserved Sensible *(sensé, raisonnable)* Sensitive *(sensible, délicat)*	Serious Sociable Sporty Strong Thoughtful *(prévenant, attentionné)* Trustworthy *(fiable)* Understanding *(compréhensif)* Unreliable Versatile *(polyvalent)* Willing *(qui fait preuve de bonne volonté, enthousiaste)*

③ What do you like?



CHECK 20	CHECKING IRREGULAR VERBS

Infinitif	Prétérit=simple past	Participe passé	Traduction
Bear	bore	borne	**supporter**
beat	beat	beaten	**battre**
become	became	become	**devenir**
begin	began	begun	**commencer**
bend	bent	bent	**courber**
bet	bet	bet	**parier**
bid	bid	bid	**faire une enchère**
bid	bade / bid (US)	bid / bidden	**ordonner**
bite	bit	bitten	**mordre**
bleed	bled	bled	**saigner**
blow	blew	blown	**souffler**
break	broke	broken	**casser**
breed	bred	bred	**élever**
bring	brought	brought	**apporter**
build	built	built	**construire**
burn	burnt / burned	burnt / burned	**brûler**
burst	burst	burst	**éclater**
buy	bought	bought	**acheter**
Cast	cast	cast	**lancer**
catch	caught	caught	**attraper**
choose	chose	chosen	**choisir**
cling	clung	clung	**s'accrocher**
come	came	come	**venir**
cost	cost	cost	**coûter**
creep	crept	crept	**ramper**
cut	cut	cut	**couper**
Deal	dealt	dealt	**distribuer**
dig	dug	dug	**creuser**
dive	dove	dived	**plonger**
do	did	done	**faire**
draw	drew	drawn	**dessiner**
dream	dreamt / dreamed	dreamt / dreamed	**rêver**
drink	drank	drunk	**boire**
drive	drove	driven	**conduire**
Eat	ate	eaten	**manger**
Fall	fell	fallen	**tomber**
feed	fed	fed	**nourrir**
feel	felt	felt	**se sentir**
fight	fought	fought	**combattre**
find	found	found	**trouver**
flee	fled	fled	**fuir**
fly	flew	flown	**voler (mouvement)**
forbid	forbad/forbade (US)	forbidden	**interdire**
forget	forgot	forgotten	**oublier**
forgive	forgave	forgiven	**pardonner**

freeze	froze	frozen	**geler**
Get	got	got	**obtenir**
give	gave	given	**donner**
go	went	gone	**aller**
Hang	hung	hung	**pendre**
hear	heard	heard	**entendre**
hide	hid	hid(den)	**cacher**
hit	hit	hit	**frapper**
hold	held	held	**tenir**
hurt	hurt	hurt	**blesser**
Keep	kept	kept	**garder**
kneel	knelt	knelt	**s'agenouiller**
know	knew	known	**connaître**
Lay	laid	laid	**poser (à plat)**
lead	led	led	**mener**
lean	leant / leaned	leant / leaned	**pencher**
leap	leapt	leapt	**bondir**
learn	learnt / learned	learnt / learned	**apprendre**
leave	left	left	**quitter**
lend	lent	lent	**prêter**
let	let	let	**laisser**
lie	lay	lain	**être allongé**
light	lit / lighted	lit / lighted	**éclairer**
lose	lost	lost	**perdre**
Make	made	made	**faire**
mean	meant	meant	**signifier**
Pay	paid	paid	**payer**
put	put	put	**mettre**
Quit	quit / quitted	quit / quitted	**arrêter**
Read	read	read	**lire**
ride	rode	ridden	**chevaucher**
ring	rang	rung	**sonner**
rise	rose	risen	**s'élever**
run	ran	run	**courir**
Saw	sawed	sawn	**scier**
say	said	said	**dire**
see	saw	seen	**voir**
seek	sought	sought	**chercher**
sell	sold	sold	**vendre**
send	sent	sent	**envoyer**
set	set	set	**placer**
shake	shook	shaken	**secouer**
shed	shed	shed	**verser**
shine	shone	shone	**briller**
shoot	shot	shot	**tirer (arme)**
show	showed	shown	**monter**
shrink	shrank	shrunk	**rétrécir**
shut	shut	shut	**fermer**

sing	sang	sung	**chanter**
sink	sank	sunk	**couler (bateau)**
sit	sat	sat	**être assis**
sleep	slept	slept	**dormir**
slide	slid	slid	**glisser**
smell	smelt / smelled	smelt / smelled	**sentir**
speak	spoke	spoken	**parler**
speed	sped	sped	**aller vite**
spell	spelt / spelled	spelt / spelled	**épeler**
spend	spent	spent	**dépenser**
spill	spilt / spilled	spilt / spilled	**renverser**
spin	span / spun	spun	**faire tourner**
spit	spat / spit	spat / spit	**cracher**
split	split	split	**fendre**
spoil	spoilt / spoiled	spoilt / spoiled	**gâcher**
spread	spread	spread	**répandre**
spring	sprang / sprung	sprung	**bondir**
stand	stood	stood	**être debout**
steal	stole	stolen	**voler (qqch)**
stick	stuck	stuck	**coller**
stink	stank / stunk	stunk	**puer**
stride	strode	strid(den)	**marcher à grands pas**
strike	struck	struck	**frapper**
string	strung	strung	**enfiler**
swear	swore	sworn	**jurer**
sweep	swept	swept	**balayer**
swell	swelled	swollen / swelled	**se gonfler**
swim	swam	swum	**nager**
swing	swung	swung	**se balancer**
Take	took	taken	**prendre**
teach	taught	taught	**enseigner**
tear	tore	torn	**déchirer**
tell	told	told	**dire**
think	thought	thought	**penser**
throw	threw	thrown	**lancer**
tread	trod	trod(den)	**fouler**
Understand	understood	understood	**comprendre**
undertake	undertook	undertaken	**entreprendre**
upset	upset	upset	**bouleverser**
Wake	woke	woken	**réveiller**
wear	wore	worn	**porter (vêtement)**
weep	wept	wept	**sangloter**
wind	wound	wound	**enrouler**
win	won	won	**gagner**
withdraw	withdrew	withdrawn	**retirer**
write	wrote	written	**écrire**