eib à distance | LE CHOIX D'UNE AUTRE SCOLARITÉ

Anglais Monde Contemporain

Classe de Première

- Premier trimestre -

76/78 rue Saint Lazare – 75009 Paris
eib-adistance.com

Organisation du premier trimestre

Semaines	Leçons	Devoirs à soumettre
1	Education in the UK: facts and issues.	
2	Is Higher education for everyone?	
3	Is Higher education for everyone (2)	Devoir à soumettre 1
4	The changing faces of school	
5	The limits of e-learning	
6	Education in English speaking countries	Devoir à soumettre 2
7	The challenges of science and technology	
8	AI between achievements and challenges	Devoir à soumettre 3
9	Art and technology: friend or foe?	
10	When science changes the world	Devoir à soumettre 4

Annexe 1: the Press

Annexe 2: bibliographie

Préambule

Conformément au programme officiel de l'enseignement de spécialité de Langue, Littérature et Culture Etrangère option Anglais Monde Contemporain, **les deux axes d'études** sont d'une part « **Savoirs, création et innovation** » déclinées en chapitres « production et circulation des savoirs », « Sciences et techniques, promesses et défis » et d'autre part « **Représentation** » déclinée en « Faire entendre sa voix, participation et représentation », « S'informer et informer » et « représenter le monde et se représenter ». 6 séquences seront consacrées à l'étude de chaque chapitre.

Le programme officiel ainsi **qu'une bibliographie de liens utiles** peuvent être consultés sur le site suivant :

anglais-monde-contemporain-ce-projet-de-programme-a-t-remis-au-ministre-en-mars-2020-et-rentrera-en-vigueur-la-rentr-e-2020--66048.pdf (education.gouv.fr)

L'activité langagière et les compétences travaillées tout au long de l'année porteront sur la compréhension orale et écrite de documents variés, et l'expression écrite.

Les documents sont proposés **en version originale** et pour certains avec une adaptation pédagogique.

L'apport lexical pour chaque axe d'étude est **conséquent**. Le choix de ne fournir aucune aide lexicale doit vous encourager à faire **une recherche systématique** du **lexique incompris** et de vous **constituer**, au fil des cours, **un répertoire** ou **un carnet qu'il faudra régulièrement réviser** afin d'enrichir le bagage lexical. L'approche thématique facilite l'apprentissage dans la mesure où les champs sémantiques se regroupent autour de quelques thèmes.

Pour la prononciation, consultez le site https://myefe.com/transcription-pronunciation

Week 7

The challenges of science and technologies

1. Introduction

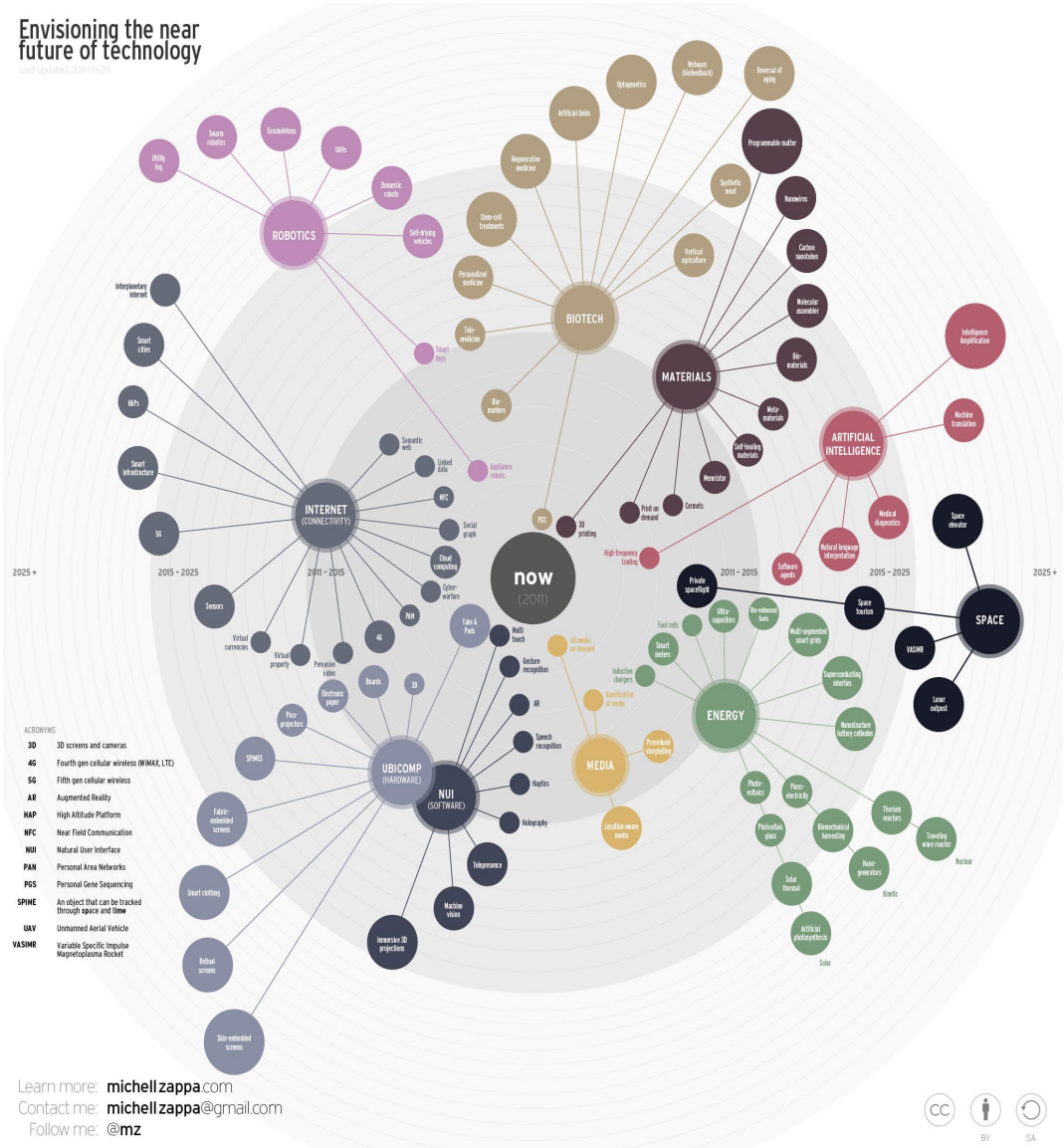
A. Brainstorming

Make a list of words or expressions, proper nouns as well which come to your mind when thinking of science and technology.

B. Loot at the following mind map.

a. What words did you find?

b. What words could you have thought of ? Circle or highlight them on the mind map below.



C. Surf the net to find the definition of the following words.

technology – a patent - cerebration – artificial intelligence -

D. What's the difference between *invention* and *innovation*?

E. Innovation or invention?

A 

B 

C 

D 

E 

F 

G 

F. A bit of History

a. Read the text.

The Industrial revolution started in Britain in the 18th century namely with the invention of James Watt's steam engine which revolutionized transport and industry. The railway developed and the British Empire emerged as a leading power and became the "workshop of the world". Capitalism was favoured by the development of garment industry and coal mines. Accumulated capital was invested to increase productivity and profit.

France and the USA soon joined the UK at the forefront of a new dynamics including American inventors Thomas Edison, Benjamin Franklin and French Clément Ader and the Lumières Brothers.

Since then, countries have been competing and tried to lead the best economic competitiveness in different fields.

This culminated in the space race between the USA and USSR. This race to technological superiority turned into unprecedented scientific and engineering collaboration of 15 countries when the construction of the International Space Station started in 1998.

Since the 1960s industry has been revolutionized by robots and artificial intelligence which is now at the core of competition, transforming people's lives and industries by implementing data exchange, cloud computing and cyber-physical systems in industry 4.0. The USA emerged again as the front-runner of the IA industry with China ranking second.

b. Link the inventor to his invention.

Thomas Edison	•	• the light bulb
Benjamin Franklin	•	• the lightening rod
Clément Ader	•	• the car
Lumières Brothers	•	• the cinema
		• the phonograph

G. Look at the document for 30 seconds then cover it. Don't look and don't cheat !

H. Answer these questions without looking at the picture.

a. What innovations did NASA contribute to? Can you guess **what for** ? Answer with sentences expressing **the aim** using : **in order to / to / so as to .**

b. What was this poster for?

c. Which invention do you consider most useful?

2. The rise of robots

A. Watch

A Brief History of Robotics - YouTube

B. Study: tick, answer, match or complete.

a. The robot has been happening for :

- ☐ decades
- ☐ centuries
- ☐ years

b. It is

- ☐ worse than presented in films
- ☐ just what films have shown
- ☐ better than films have shown

c. List the examples linked to robotisation.

d. Giving the definition of a robot is :

- ☐ elaborate
- ☐ tricky
- ☐ easy
- ☐ complex

e. What are the three main steps a human has to go through if he wants to pick up a coin on the floor ? Put the sentences in order.

f. Complete:

Robots have ..... for input, control systems for ....., and end effectors for .....

g. Complete the chart with the components and what they are for.

Components			
What are they for ?			

h. What's the company which installed a robot on a production line?

i. List the cons of the robot.

j. When was a robot controlled by a microcomputer?

k. While controlling robotic arms was getting simpler, another issue came up. What was it?

l. Robots were good at complex reasoning tasks like playing chess etc ... but it was still very difficult for them (complete) ..... with the real world.

m. What change occurred in 1981?

n. What were industrial robots gradually capable of?

o. Translate the following passage.

These days, industrial robots are advanced enough that it's totally normal for a factory to install a robotic assembly line that handles nearly all of its production, and some industrial robots are heading in the direction of a more general purpose use, like Baxter, the humanoid industrial robot.

p. Give the definition of a humanoid.

q. Baxter. Describe him and recap its limits.

r. What could Wabot I do?

s. Name the different robots and what they can achieve. Give details.

t. DARPA. What is DARPA?

Rendez-en compte **en français.**

u. Tick the correct answer(s) to conclude:

- ☐ So robot tech has come a long way since that first robotic arm in 1961.
- ☐ We will no longer invent actual robots.
- ☐ Robots' development has been awesome.
- ☐ Robotic science has come to its utmost level.

3. When robots take the power

A. Read the text.

Since the oldest of times people have sought for ways to save them from hard physical work and mental 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 reach a certain level of intelligence.

[…]

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 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 business without posing risks to the human workforce and the surrounding environment.

Fiction and movies were not kind to AI and robots

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.

[…]

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 humans 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. 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.

Bogdan Butoi, www.techzone360.com, May 24th, 2019.

B. Fill in the chart with elements from the text.

Pros	Cons

C. Express contrast.

From the collected information, recap using words expressing contrast : *on one hand, on the other hand, whereas , even if, nevertheless , however ...*

D. Answer this question.

Who is considered to be the father of AI?

E. Surf the net to know more about that man.

F. What is the Enigma machine?

a. watch the first video called Enigma machine explained.

Alan Turing (British mathematician and logician) | Britannica

b. Give a definition of the Enigma machine.

G. Watch the film *the Imitation Game* to know more about the Alan Turing's achievements.

H. Phonetics.

The following words (some of which come from the text above) all finish by *-ate*. But is *-ate* pronounced [eit] or [ət] ?

Date

Late

Assimilate

Create

integrate

dominate

immediate

debate

climate

Observe the nature and composition of the words in order to edict the rule.

4. Robots in sci-fi films

There is no talk about robots in sci-fi without mentioning **Isaac Asimov on one part and without** sci-fi films without robots taking a huge part in it. They make the spectators dream or freak out.

A. Surf the net to find out.

Who was Isaac Asimov? Do you know who he is? What rules did he develop?

B. Do you think The Three rules are always respected? Develop.

C. Can you name some of them? Have you seen some?

D. Here is a list of sci-fi films.

Star Wars George Lucas 1977

the Matrix by the Wachowskis 1999

Ex machina Alex Garland 2014

Alien Ridley Scott 1979

Interstellar Christopher Nolan 2014

Metropolis Fritz Lang 1927

Wall-E Andrew Stanton 2008

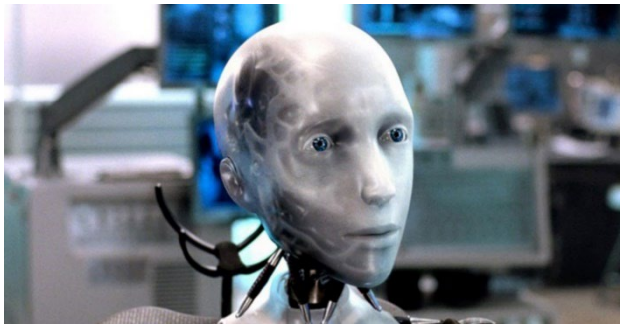
AI Steven Spielberg, 2001

Short Circuit John Badham 1986

I Robot Alex Proyas 2004

E. Match the pictures with the film.

_____



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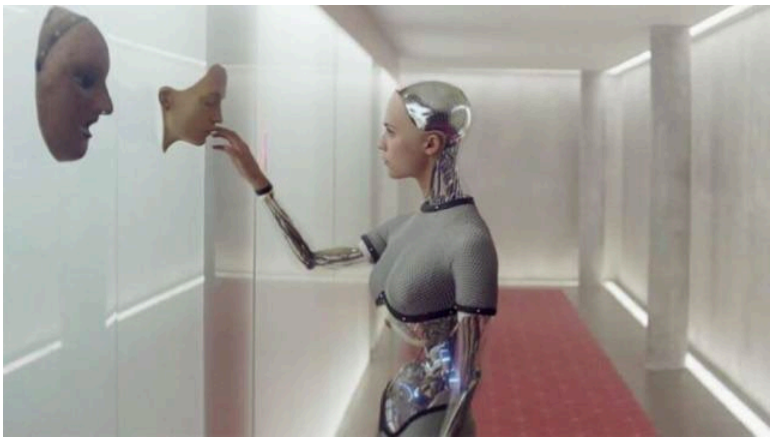

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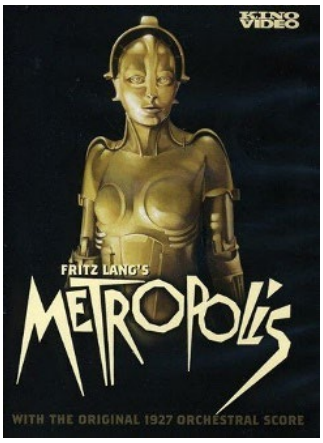
KINO VIDEO
FRITZ LANG'S
METROPOLIS
WITH THE ORIGINAL 1927 ORCHESTRAL SCORE

_____


WALL-E

_____


TARS

_____

_____

_____

F. Read each paragraph and label it with the right film title. You can also get help from the pictures above if you need.

AI - Star Wars - the Matrix - I robot - Alien - Wall-E – Interstellar - Metropolis -Ex Machina – Terminator - Short Circuit -

a. This film probably figures the most iconic robots which help the heroes to overthrow the emperor to restore peace in the whole galaxy.

b. It depicts a dystopian future in which computer hacker Neo discovers he is trapped in a simulated reality created by an evil cyber-intelligence.

c. A young man called Kaleb is a coder who wins a prize : meeting the big boss for a week. The latter confronts him with a female robot called Ava. Kaleb involves into a relationship with Ava who on her side dreams of freedom.

d. The story is set in a shuttle outer space. The robots aboard receive a signal from an unknown planet but while exploring it, one passenger gets infected and attacked by a malignant and threatening alien which is going to lay an egg in his body.

e. The robot is short for Waste Allocation Load Lifter Earth-class, it is the last robot left on Earth after the humans have left the planet in a spaceship. He spends his days tidying up the trash and debris on Earth, he also collects things and recycles them.

f. the *Maschinenmensch* is a metallic automaton shaped like a woman. In a context of social struggles between the working class and the upper class people, a robot is created to calm down the crowd and to stop the rioting, but the robot provokes havoc instead.

g. Johnny 5 is a military robot struck by lightning which gradually gains human-like intelligence and ends expressing his own feelings and emotions.

h. Considered as the Pinocchio adaptation of the 21st century, the film retraces the life of a childlike robot who has been adopted by a couple and longs to be loved as an actual child.

i. Based on Asimov's laws the film chronicles a robot which can think by himself without human monitoring. With a policeman's help he descripts the schemes of a central computer which wanted to put humankind in slavery.

j. Cyborgs have taken power over humans on Earth and have engaged into a war against humans who want to restore peace on their planet.

G. From the film posters and the description of the robots, write as many sentences as you can expressing contrast using various words. (see 4. C.)

Envoyer le devoir à soumettre n°2