Lesson 3 – Science and Technology

Lesson 3. Science and Technology

Learning Objectives

After this lesson, students will be able to:

1. Rank inventions according to their usefulness in human lives.
2. Define science and technology.
3. Interpret the relationship among science, technology and society.
4. Derive vocabulary from crossword puzzle and use them properly in sentences.
5. Justify the use of security cameras in certain areas.
6. Determine when to use will and be going to forms of Simple Future Tense.
7. Use Simple Future Tense Forms to talk about predictions.
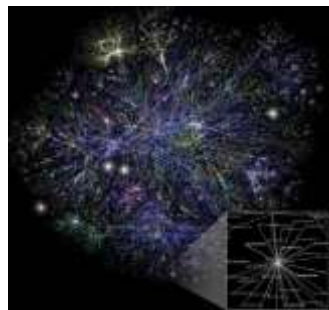8. Produce sentences using idioms related to science and technology.

Top 10 Inventions in the World

The internal combustion engine

The Wheel

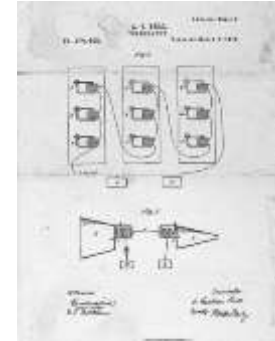The internet

The Nail

The Compass

Contraceptives

The Printing Press

Penicillin

The telephone

The light bulb

1. Rank the inventions according to which is the most useful for you.
2. What difference could there have been if these hadn't been invented?
3. What kind of upgrades would you like to give these inventions.
4. What other inventions do you think have made significant changes in human lives?

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Relationship between Science and Technology

Science and technology is an interdisciplinary topic encompassing science, technology, and their interactions:

• Science is a systematic enterprise that builds and organizes knowledge in the form of explanations and predictions about nature and the universe.

• Technology is the collection of techniques and processes used in the production of goods or services, or the accomplishment of objectives such as scientific investigation.
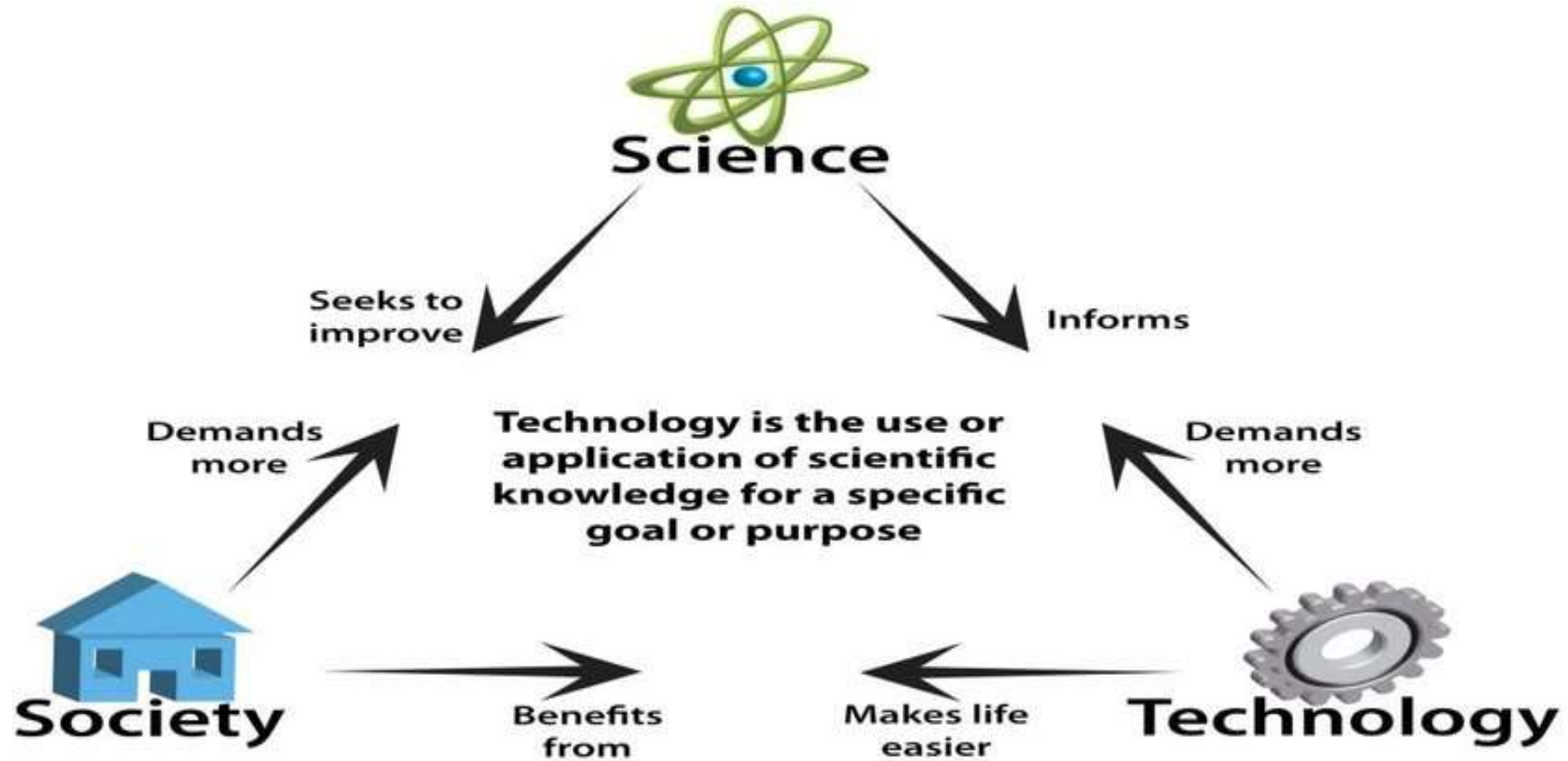
Ponder this!

How does technology make your life easier, more comfortable and more convenient?

Source: Science and Technology - Oxford Reference

The Relationship between Science, Technology, and the Society.

Science

Seeks to improve

Informs

Demands more

Technology is the use or application of scientific knowledge for a specific goal or purpose

Demands more

Society

Benefits from

Makes life easier

Technology

Explain the diagram above.

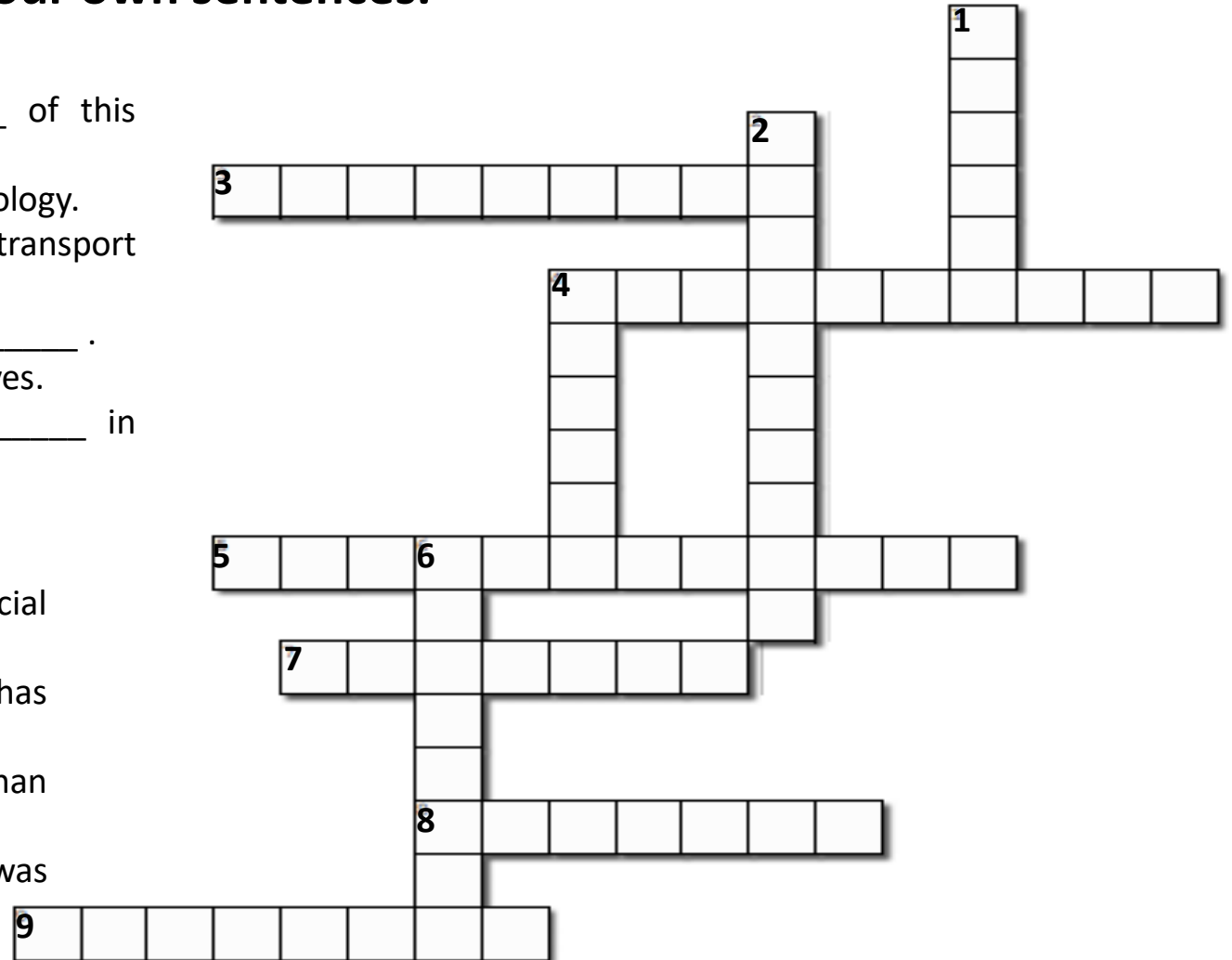Diagram

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Solve the puzzle. Use each solved item in your own sentences.

Across

3. It remains to be seen what the long-term _____ of this technology will be.
4. The cloud is one of the latest _____ in computer technology.
5. One major _____ is the use of computers in transport regulation.
7. It's not easy to predict how this technology is going to _____ .
8. It is undeniable that computers have _____ our daily lives.
9. The 21st century has already seen considerable _____ in computer technology.

Down

1. Generally speaking most technology has had a beneficial _____ on our lives.
2. It goes without saying that the computer _____ has changed all our lives.
4. Few inventions have had a greater _____ on mankind than the computer.
6. One of the greatest technological _____ ever made was the microchip.

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Listen and answer the following questions.

🎧 **Listening Activity 3.1   *Is technology always the solution?***

Human beings are flawed and carry their prejudices and opinions with them. Wouldn't it be better if we could replace them with artificial intelligence, if we could get computers to do all our thinking for us? Rob and Catherine discuss if technology is a good solution for all our problems and teach you six items of vocabulary.

1.   What do the following vocabulary mean?

chauvinist	**objective**	**nuanced problem**
technochauvinism	**proxy**	**algorithm**

2.   Who is Meredith Broussard?
3.   Racism, sexism, classism and ageism are mentioned in the audio as _____?
4.   In what decade was the term 'Artificial Intelligence' coined?
a) 1940s   b) 1950s   c) 1960s

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It has become appallingly obvious that our technology Has exceeded our humanity.

Albert Einstein

Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.

Bill Gates

The internet is so big, so powerful and pointless that for some people it's a complete substitute for life.

Andrew Brown

Getting information off the internet is like taking a drink from a fire hydrant.

Mitchell Kapor

Explain the quotations above.

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Security Cameras

One of the latest technological developments is cameras, which have been used for many years, especially to fight against crime. First, cameras have started to be installed in public places such as car parks and shopping centers where the number of the staff isn't enough to prevent theft.

Recent surveys have shown that theft has decreased in the places where cameras are installed. Cameras have also been used in schools, colleges and office lifts to prevent the theft of valuable equipment such as computers. Secondly, cameras are helpful in preventing hooligans from spoiling the pleasure of the majority at some social events like football matches. They film people at large sporting events so it is easy to distinguish the people who are hooligans.

Finally, cameras are used outside our houses as it is a good way of catching thieves. To conclude, it is possible to reduce crime and feel more secure by means of cameras

Where are the security cameras installed in your community?

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True or False

1. Cameras have just started to be used against crime.
2. There has been a fall in theft, thanks to cameras.
3. It is not possible to identify hooligans by using cameras.
4. People prefer to use cameras outside their houses for burglars.
5. Technology helps us to feel more secure in our daily lives.

Tell the reasons why cameras are installed in the places mentioned

PLACES WHERE CAMERAS ARE INSTALLED	REASON
schools, colleges and office lifts	....
football fields	....
outside our houses	....

Future Tense- Will vs. Going to

A very confusing concept is when to use **WILL** and when to use **BE GOING TO** when we refer the future.
Both refer to the future but there is a slight difference but in most cases they can be used interchangeably with no difference in meaning. Even if you misuse them, a native speaker is going to understand you without any problems.

When to use GOING TO
The structure **BE GOING TO** is normally used to indicate the future but with some type of connection to the present. We use it in the following situations:
1. When we have already decided or we intend to do something in the future:
They**'re going to** retire to the beach - in fact they have already bought a little beach house.
2. When there are definite signs that something is going to happen:
I think it **is going to** rain - I just felt a drop.
3. When something is about to happen:
Get back! The bomb **is going to** explode.

When to use WILL
In other cases, where there is no implicit or explicit connection to the present, use **WILL**:
1. For things that we decide to do now.
I'll buy one for you too.
I think I'll try one of those. (I just decided this right now)
2. When we think or believe something about the future.
My team will not win the league this season.
I think it will rain later so take an umbrella with you.
3. To make an offer, a promise or a threat.
I'll give you a discount if you buy it right now.
I promise I will behave next time.

Put the correct form of **going to** or **will** to complete the dialogue.

LAURA: What are you doing this weekend, Jan?
TANYA: I _____(see) a new play tomorrow at the Royal Court theater.
LAURA: Have you got the tickets yet?
TANYA: NO, I _____ (get) them this afternoon, actually. Would you like to come?
LAURA: Oh, thank you, that would be nice.
TANYA: OK, I _____ (get) you a ticket too.
LAURA: Great ... what time does it start?
TANYA: Eight o'clock, but we _____ (all meet) in the Green Cafe at 7.15.
LAURA: OK, I _____(meet) you in the cafe, but, er... I (be) there around 7.30.
TANYA: That's fine.
LAURA: Oh, one other thing ... I've got no money at the moment... I _____ (pay) for the ticket on Saturday. Is that OK?
TANYA: Yes, that's OK, no problem.
LAURA: Great! Why don't we go eat something in the restaurant?
TANYA: That's a good idea. I _____ (phone) the others and see if they want to come too.
LAURA: Good, and I _____ (book) a table for us.
TANYA: Great! I _____ (meet) you there in a moment.

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Discuss the following ideas:

Hologram phones

Floating cities

Future Fashion

Human-like Android

Flying cars

Future Food

Discuss your own predictions which are likely to happen in 50 years.

Example:
I believe people will commute from the Earth to space everyday by just pushing button…..

Technology Survey

Read each of the following statements then indicate your response by checking "I agree" or "I disagree."

		I agree	I disagree
1.	Technological advances make life better for everyone.		
2.	It's important for adults to find out where their children are going online and who they are talking.		
3.	Computer technology makes finding information faster and easier.		
4.	If people let machines do too much for them, eventually people will no longer be able to do things for themselves.		
5.	Children should be given more freedom in deciding what they do online.		
6.	It is dangerous to place too much faith in technology.		
7.	It is impossible to become addicted to the Internet.		
8.	Children who play computer games often believe that the violent games they play portray life as it actually is.		
9.	Most teenagers are online too much.		
10.	Those who worry about the negative effects of technology should think about the modern conveniences available today.		
11.	Adults too often use the computer games as a kind of babysitter for their children.		
12.	Having the latest technology is important to success.		

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Use each in your own sentences.

Idiom	Meaning	Sentence
Rocket science	subject or issue seen as very simple and easy.	I don't see why she found following the recipe so difficult – it's not exactly **rocket science.**
Well oiled machine	works smoothly and efficiently.	Their team is a really **well oiled machine.**
Pushing buttons	doing something specific to deliberately provoke a reaction	My sister knows just what **buttons to push** to make me really angry.
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Express Yourself

1. What is your opinion of scientists? Do you think they are boring people or interesting?
2. What could be the most important technological advance of all time?
3. Have you ever had an innovative idea? If so, did you put it into action?
4. What are the best ways for individuals to come up with innovative ideas?
5. Do you think that all scientific investigation should be directed towards producing things with an immediate practical or commercial benefit?
6. Advances in medical technology mean people are living longer. What are some of the downsides of this? How old do you hope to live?
7. Are you an **early adopter**? Do you like to have **cutting edge** technology? Are there any disadvantages to buying the latest product?
8. What crazy future technology are you **looking forward to**?
9. Some people prefer to live with less technology in their lives. Can you understand the desire to live *a simpler life*?
10. Many science fiction movies present a dark vision of the future. Are you optimistic or pessimistic about the future of humanity?
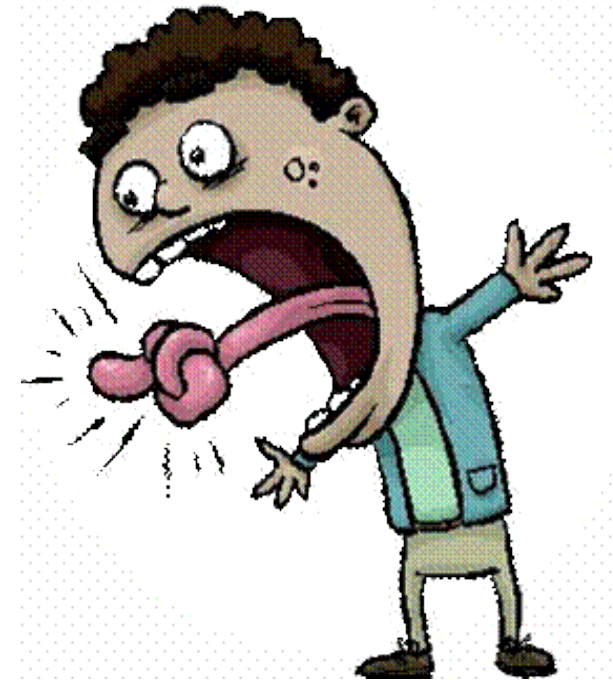
Tongue Twisters

Which wristwatches are Swiss wristwatches?
Ruby Rugby's brother bought and brought her back some rubber baby-buggy bumpers.
What a to do to die today At a quarter or two to two. A terrible difficult thing to say But a harder thing still to do. The dragon will come at the beat of the drum With a rat-a-tat-tat a-tat-tat a-tat-to At a quarter or two to two today, At a quarter or two to two.

The End