Teaching notes and key

Level: intermediate (B1/B2).

Aims:
- to discuss technology
- to work on reading skills: checking predictions, scanning and detailed reading
- to practise shifting word stress on two-syllable verbs and nouns
- to practise presentation skills by talking about a new invention.

Preparation
You will need a copy of the article from The Week magazine, which can be found at www.teachitworld.com.

Warmer

Answers:

1928 – (mechanical) TVs
1953 – home computers (the IBM 701)
1972 – emails (using the @ symbol; other email systems existed by 1965)
1972 – games consoles (the Magnavox Odyssey)
1976/7 – VHS video recorders (the HR-3300 by JVC)
1983 – mobile phones (Motorola’s DynaTAC)
1983/4 – video camcorders (the Sony BMC100P and the JVC GR-C1)
1995 – the internet (first commercialised, but network providers have existed since the late 1980s)
1996 – DVD players (in Japan)
2001 – iPods

The information comes from various websites, including:

http://www.tvhistory.tv/
http://www.computerhope.com/historyq.htm
http://www.pong-story.com/odyssey.htm
http://www.rewindmuseum.com/vintagecamcorder.htm
http://inventors.about.com/cs/inventorsalphabet/a/martin_cooper.htm
http://en.wikipedia.org/wiki/Internet
http://inventors.about.com/library/inventors/bldvd.htm

Reading: predicting and checking predictions

Encourage the students to do the initial reading fairly quickly and to avoid using dictionaries at this stage, as vocabulary work and comprehension questions come later.

You may also want to share some of these surprising facts about contact lenses:
- Leonardo da Vinci came up with the idea of contact lenses in 1508.
- The first contact lens was manufactured (from glass) in 1887.
- The first plastic contact lens was made in 1939.

(source: http://www.contactlenses.org/timeline.htm)
News-based lesson: 3rd December 2011

Smart contact lenses on the way

Reading: vocabulary

Answers:
1. pixels
2. device
3. stream
4. project
5. power source
6. holographic
7. trials
8. microcircuitry
9. embed
10. light-emitting diode

Reading: comprehension questions

Answers:
1. rabbits
2. reading text messages or news headlines; streaming films; giving directions to drivers
3. finding a power source; improving its microcircuitry (making it able to project more complex information)
4. Aalto University in Finland and the University of Washington.

Pronunciation: shifting stresses

Read out the sentences for the students, taking care to put the stress on the correct syllables. The stressed syllables are shown in bold. Students could mark the stress by highlighting the stressed syllables.

- A new generation of contact lenses which project images in front of the eye is a step closer.
- At present, the lenses contain just one light-emitting diode.

Project is a verb and present is a noun in these sentences.

1. I am going to project the results of my project on to the board.
2. Should I present my present to her now?
3. You need a permit to permit you to fish here.
4. Does anyone object to me having this object?
5. Soldiers shouldn’t desert the army in the desert.
6. I am going to record my record in the studio tomorrow.

Drill the pronunciation and then get students to practise in pairs.
See if they can think of any other words like this. Other examples would be: export, import, conflict, contract, contrast.

Follow-up: inventors!

Encourage the students to be as inventive as possible! You could also ask them to prepare a poster or a PowerPoint presentation on their invention.
After all the groups have presented, vote on which invention would be the most successful.
Worksheet

Lead-in: technology

Put the inventions onto the timeline. The dates are when the inventions were available to buy or use.

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<tr>
<th>game consoles</th>
<th>home computers</th>
<th>iPods</th>
<th>email</th>
<th>mobile phones</th>
<th>VHS video recorders</th>
<th>DVD players</th>
<th>video camcorders</th>
<th>the internet</th>
<th>televisions</th>
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Discuss the following questions in small groups:

1. Which of the things on the timeline do you think was the most important to the world?
2. Which of these things is your favourite invention? Why?
3. What do you think will be the next big invention?
Reading: predicting and checking predictions

You are going to read an article entitled ‘Smart contact lenses on the way’. Before you read it, discuss the following questions:

1. Do you wear contact lenses, or do you know someone who does?
2. What are the advantages and disadvantages of contact lenses?
3. How do you think they could develop in the future?

Now read the article quickly. Are any of your ideas from question 3 mentioned?

Reading: vocabulary

Find the vocabulary items in the text. Write them next to their definitions.

**Vocabulary**

<table>
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<tr>
<th>project (v.)</th>
<th>trials (n.)</th>
<th>device (n.)</th>
<th>pixels (n.)</th>
<th>stream (v.)</th>
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<tbody>
<tr>
<td>microcircuitry (n.)</td>
<td>light-emitting (adj.)</td>
<td>holographic (adj.)</td>
<td>power source (n.)</td>
<td>embed (v.)</td>
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**Definition**

1. the smallest units of an image on a computer screen
2. a piece of equipment which does a particular job
3. to listen to music or watch a video directly from the internet without downloading it
4. to send an image to a screen or other surface
5. something which provides energy, e.g. a battery or an electric socket
6. describes images made with lasers which appear three-dimensional
7. scientific tests
8. a very small system of thin lines of metal which carry an electric current
9. to fix something firmly in an object
10. a small electronic object which produces light
Reading: comprehension questions

Read the text again and answer the following questions:

1. Which animal have researchers been experimenting on?
2. Name three things the contact lenses could be used for.
3. Name two problems the researchers are having with the lenses.
4. Which two universities which have been developing the technology?

Now discuss the following question: Would you like to use this technology?

Pronunciation: shifting stress

Look at the following sentences from the text:

1. A new generation of contact lenses which project images in front of the eye is a step closer.
2. At present, the lenses contain just one light-emitting diode.

Are the underlined words verbs or nouns? Listen to the pronunciation and mark the stress on the underlined words.

There are many two-syllable words in English where the noun and verb are the same apart from the position of the stress: it is on the second syllable for a verb and the first syllable for a noun, for example, the word project is a verb when we stress the second syllable (proJECT), as in the example, and a noun when we stress the first (PROject).

Look at the sentences below. Mark the stress on the underlined words.

1. I am going to project the results of my project on to the board.
2. Should I present my present to her now?
3. You need a permit to permit you to fish here.
4. Does anyone object to me having this object?
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Listen and check your answers.

Listen again and repeat the sentences.

Follow-up: inventors!

Work in groups of three or four. You are going to design the next big invention. If your idea is successful, you could become millionaires! Discuss ideas in your group and then complete the form.
<table>
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<th>Name of invention:</th>
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<td>Function (What will it do?):</td>
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<td>Design (What will it look like?):</td>
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<td>Target market (Who will buy it?):</td>
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<td>Most important uses of the invention:</td>
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You will need to present your ideas to the class. Everyone in your group must speak, so decide who will talk about what.