

Unit 4

1 Read the article about inventions and choose the best subtitle for it.

- a A Tokyo museum puts together an international collection of technologies that changed the world
- b A Tokyo museum is providing the key to successful technological advances
- c A Tokyo museum is trying to identify the technology that has changed the way we live
- d A Tokyo museum submits a definitive classification for technological innovation
- e A Tokyo museum is creating an objective and unbiased collection of technological advancement

2 Read the article again and choose the best answer (a, b, c or d) to the questions.

- 1 What does the writer think of the museum's choice of technological advances?
 - a It is interesting and unusual.
 - b It is weird and controversial.
 - c It is balanced and objective.
 - d It is ordinary and dull.
- 2 What sort of things can be chosen for inclusion in the museum?
 - a gadgets and machines only
 - b inventions and advances in medicine, industry and technology
 - c advances in heavy-industry and technology
 - d any global industrial advance that has changed lives
- 3 Which of these inventions is famous for being very sturdy and unlikely to break if dropped?
 - a Sony's robot dog.
 - b the Yamaha® D-1 electric organ
 - c the Sony Walkman™.
 - d the Casio™ G-Shock watch
- 4 Which of these is particularly popular with visitors?
 - a the VHF antenna.
 - b the Motoman® industrial robot
 - c the TR-808 rhythm composer .
 - d extrusion-moulded joints for 500kV cables
- 5 How does the writer see the list improving in the future?
 - a It will become more evenly distributed between hardware and software.
 - b It will include fewer crowd-pleasers and be more objective.
 - c It will become more subjective and the standard of entries will rise.
 - d Eventually, it should equip us with a means of quantifying the effect of technology on humanity.

3 Find the adjectives (1–5) in the text and match them with the definitions (a–e).

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| 1 ever-expanding | a difficult to find, define, achieve or answer |
| 2 coveted | b essential, important because other things depend on it |
| 3 pivotal | c becoming increasingly bigger |
| 4 astounding | d very surprising, amazing |
| 5 elusive | e popular, wanted, desired |

4 Complete the phrases with a verb in the box. Then find them in the text.

assume claim play prize qualify quibble represent transform

- | | |
|---|---|
| 1 to _____ their spots on the roster | 5 to _____ an era |
| 2 to _____ the concept of disruption | 6 to _____ to be the inspiration for a song |
| 3 to _____ a notable role | 7 to _____ hardware over software |
| 4 to _____ for a place in the history books | 8 to _____ with some entrants |

5 Complete the sentences using words from Exercises 3 and 4 in the correct form.

- 1 They are the most _____ devices because they are the ones that everybody wants.
- 2 I don't think they can _____ that their computers are the most best on the market as their competitors have produced an even more innovative device.
- 3 The solution to the problem is so _____ I don't think we'll be able to find it.
- 4 Although the prototype is interesting, it isn't user-friendly and we don't think it _____ for further development.
- 5 I don't want to _____ with your choices, but they do seem rather odd.
- 6 The recently appointed director has now _____ his position on the board.
- 7 The new chairman has _____ the company from an old-fashioned firm into contemporary, forward-looking business.

Walkmans™ and world firsts: Japan's gadget hall of fame

What do a nineteenth-century placard cast from pig iron, Sony's discontinued-then-resurrected robot dog and the Yamaha® D-1 electric organ have in common?

The answer, of course, is that they have all now assumed their spots on the roster of Japan's Essential Historical Materials for Science and Technology – that country's quirkily compiled, ever-expanding hall of fame for the contraptions that really count.

Without ever quite saying it, this list represents the concept of disruption before Silicon Valley co-opted the word. Only the best Japanese gadgets need apply. The coveted places are awarded, at the rate of about twenty per year, by experts at Tokyo's National Museum of Nature and Science.

There are several categories of qualification, any one of which can put an era- or industry-defining piece of tech in contention. To make it on the list, a Japanese gadget (or medicine or industrial advance) must have played a notable role in improving people's way of life or creating new ways of living; it must represent a pivotal moment in scientific or technological development; it must represent an important moment in the relationship between society and tech; it must demonstrate a 'uniquely Japanese scientific or technological development from an international perspective' – i.e., to have beaten the Americans, Brits or Germans to some coveted beachhead of postwar progress.

The 285 positions that have been awarded since the hall of fame opened in 2008 are held by a fabulous range of inventions that date from the start of Japan's great modernisation. This year's entrants include the Casio™ G-Shock watch (the Casio pocket calculator was inducted some years ago). It qualifies for a place in the history books for its 'astounding shock resistance'.

Some inventions, such as the 1882 cement-grinding mill, transformed an era when 'tech' was something measured in tonnes and involved iron axles the size of a tree. Others, such as the PCM processor that essentially made home video possible, were the invisible progenitors of the digital age.

There are plenty of obvious crowd-pleasers – such as the Motoman® industrial robot. The Sony Walkman™ was the 109th item to be inducted on to the list, and quite obviously belongs as a 'changing the way we live' contender: what other gadget, after all, can claim to be the inspiration for a song (*Wired for Sound*) by Cliff Richard? The list is consistently surprising and endlessly worthy of perusal. It's very easy to enjoy it for what it is. But you can also read it as a tightly defined history of the past 150 years of Japanese technology – and a further reminder of how Japan prizes hardware over software.

There are numerous world firsts, including the first inverter air conditioner for home use, the first VHF antenna, the first radio phone and the first mobile phone with built-in camera. Separated by decades, each has a serious claim to have changed the way we live or, at the very least, to have inspired someone to have asked 'what on earth did we do before the ...?'

It is possible to quibble with some entrants. The TR-808 Rhythm composer from 1980 makes it in for 'allowing freedom to program a rhythm pattern for an entire song and had a great effect on the music scene'. Other hall-of-famers, such as the extrusion-moulded joints for 500kV cables, require some fairly technical knowledge to understand how they changed the world.

Perhaps inadvertently, the list also raises an elusive question: Is it ever possible to precisely measure and compare the impact of two completely different technologies? In its current form, it isn't quite equipped to do so: it appears to be compiled using scientific standards but remains, in reality, a subjective, impressionistic painting of progress. It leaves open, however, the clear prospect of becoming much less so over time as the bar to entry becomes higher and as those selecting the new entrants are forced to apply stricter standards. At some point, this list will provide a means to quantify the human impact of tech, just not yet.