

A living room on a skateboard: how electric vehicles are redefining the car

Level: Intermediate

1 Warmer

a. Briefly discuss this question.

- Petrol, diesel, or electric cars: what are the advantages and disadvantages of each?

2 Key words

a. Find words in the article that match the definitions below. The paragraph numbers are given to help you. Then read the article and notice how the words are used in context.

1. big, wide, and solid _____ (paragraph 2)
2. be used instead of something that was used before _____ (paragraph 2)
3. companies that make goods in large quantities in a factory _____ (paragraph 5)
4. including only the most basic features _____ (paragraph 9)
5. the amount of land, energy, water, etc., that a person or organization uses in order to exist or operate _____ (paragraph 11)
6. things such as buttons or keys that control the electrical supply to a light, piece of equipment, machine, etc. _____ (paragraph 15)
7. turning around on a fixed point so you can face another direction _____ (paragraph 17)
8. the inside parts of something, especially a building or vehicle _____ (paragraph 19)
9. despite a fact or idea that you have just mentioned: used as a way of showing how a sentence, phrase, or word is related to what has already been said _____ (paragraph 19)
10. something you wish for that can never really happen _____ (paragraph 19)

b. Use some of the key words above to complete these sentences.

1. No one thought that email would completely _____ the traditional business letter.
2. In her heart, she knew that living on a houseboat was probably nothing more than a _____.

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3. The company will start to sell a new range of cheaper, _____ products later this year.
4. No one was surprised when Gareth hit the wrong _____ and accidentally turned off all the lights.
5. Amy's young son loves _____ on her office chair.
6. Data centres create a large environmental and energy _____.

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Jasper Jolly

11 June, 2022

- 1 A mechanic working on a Ford Model T 100 years ago would probably understand how any petrol car sold today works. An internal combustion engine at the front turns the wheels, and the driver sits behind a steering wheel.
- 2 Electric cars change everything. The shape of the car will no longer depend on bulky engines, exhaust gas handling or driveshafts. Digital technology will soon replace everything from rear-view mirrors to the human driver. Never before has the car industry seen so many changes all at once.
- 3 Here are some of those changes.

'The skateboard'

- 4 Look at the front of a Tesla and one thing is clear: it doesn't need a grille to provide air to the engine.
- 5 Other car manufacturers are using the new design freedom to offer retro-futuristic models that might have featured in a 1980s sci-fi film.
- 6 Electric cars are built with a "skateboard" design, with a flat bed of batteries and wheels and motors at either end. Electric motors are smaller than bulky internal combustion engines, so there is no need for a large bonnet in front of the driver.

More interior space

- 7 The skateboard means electric cars tend to be a few centimetres taller. Many carmakers have started with bulky sports utility vehicles (SUVs) first so they can fit in more batteries. But there is still more space for passengers.
- 8 In combustion engine cars, "the mechanics took up a lot of space," says Mark Adams, design director for Vauxhall-Opel.
- 9 Citroën already has a different option: the Ami is a tiny, no-frills two-seater car for cities. It will sell for less than £8,000 in the UK.
- 10 In France, anyone over 14 years of age can drive an Ami, with no need for a driving licence.
- 11 Adams believes the electric revolution could finally stop the move towards bigger SUVs. "The days of the growing cars are gone," he says. "We don't need to have massive footprint cars anymore."

Fewer car parts

- 12 Producing zero exhaust emissions is one major change. Reducing waste at end of life is another. This can be done by using fewer parts with fewer complicated mixes of materials.
- 13 For instance, a car's front grille can contain 10 to 15 pieces, so not having one makes it easier to recycle the car. BMW's i Vision Circular is made with only seven materials – all recyclable.

Forget the steering wheel

- 14 Future cars will probably not need a steering wheel. Driverless cars are already on the roads.
- 15 Changing "one big thing changes 100 smaller things", Adams says. Less driving means cars will need fewer buttons and switches, providing a cleaner look, which is more about leisure.
- 16 Overall, digitalization will have an even bigger effect on car design than electrification.

Living room on wheels

- 17 The Korean carmaker Hyundai's concept Seven vehicle has swivelling lounge chairs. Hyundai calls the car a "living space on wheels". Some new cars will be like a moving extension of home that allows drivers the freedom to do other things.
- 18 All that free time on the move may give people more time for other activities. Cinema-style projectors or virtual-reality entertainment are two options. Big-tech companies from Apple and Alphabet to Spotify and WeChat believe the car will be the next place where they can sell services such as films, games and music.
- 19 Eventually, interiors could move from "living room" to "bedroom", although putting beds rather than seats in cars could mean new safety problems. Nevertheless, the idea of going to bed at home and waking up at work, or even in another country, is no longer a Jetsons*-style pipe dream.

**The Jetsons* = a 1960s US animated cartoon series for children about the adventures of a futuristic family in the year 2062

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3 Understanding the article

- a. Are these statements True or False according to the article? Correct any that are false.
1. A mechanic from one hundred years ago would probably still know how today's electric cars work.
 2. For many years, the large engine has affected the shape of a car.
 3. At the moment, electric cars are a little bit taller than similar petrol cars.
 4. Fewer and less complex parts mean that electric cars are easier to recycle.
 5. One big change often means that many other things in a new car design can be changed too.
 6. Digitization means that customers can now buy an electric car with either a bedroom or a living-room interior.

4 Key language

- a. Use the words in the box to create two-, three-, or four-word phrases that fit with the meanings. Then find them in the article to check your answers.

is at one of futurism to thing all retro tend move once be end on clear the life

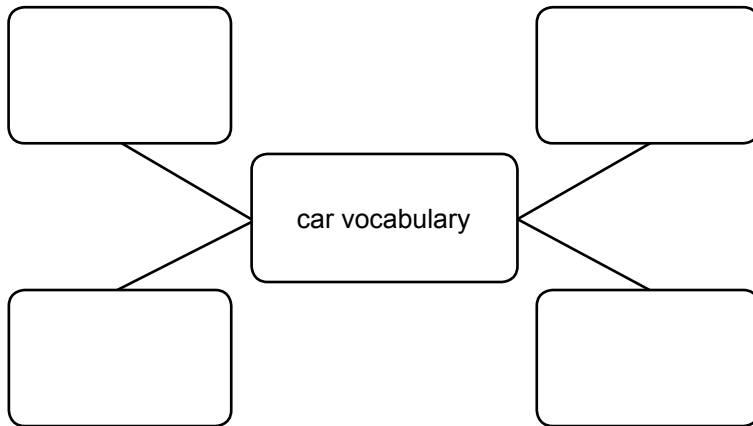
1. everything at the same time
 2. this much is obvious
 3. what people in the past thought the future would be like
 4. are usually
 5. the time when a product can no longer work or can no longer be used
 6. while you are travelling around
- b. Now use the phrases to talk about the article.

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5 Car and vehicle vocabulary

a. Find and highlight all the car-related vocabulary in the article. Write it onto the mind map.



b. Add other car vocabulary that you know. Where the words are different in British and American English, write both and add BE or AE to the words.

c. Look at the car images and talk about their parts and features with a partner.



6 Discussion

a. Discuss these questions.

- When you were a child, what did people think cars of the future would be like?
- Roughly, how many cars have you had in your life?
- What was the first?
- Which was your favourite?
- What changes and differences are there between your first and your most recent car?
- What do you like best about driverless/autonomous vehicles?

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7 In your own words

- a. Create an interesting and informative poster or advert as part of a project to get people to change to electric vehicles.