

## 4

## 自動車と燃料

## 手引き

ハイブリッド車はガソリンエンジンと電気モーターを併用する自動車ですが、どんな仕組みで走るのでしょうか。最近の自動車事情を確認してみましょう。

Today, the cost of gasoline is much higher than it was a few years ago. In addition, many people are worried that air pollution is causing serious problems for the environment. In order to solve these two problems, scientists and researchers are constantly looking into different ways of making cars and vehicles cleaner for the environment and less dependent on gasoline.

air pollution  
大気汚染  
cause  
もたらす  
environment  
環境  
solve  
解決する  
vehicle  
乗物  
dependent  
依存している  
green  
環境にやさしい

rechargeable  
再充電可能な

acceleration  
加速

aerospace  
航空宇宙学

There are already many environmentally friendly cars that have been developed and are in use today. A hybrid vehicle is a type of "green" car that has both a gasoline engine and an electric motor. The electric motor drives the wheels, while the electricity for the motor is generated by the gasoline engine. The electricity is stored in a rechargeable battery. The gasoline engine also helps to move the wheels directly whenever extra power is needed for acceleration. Hybrid cars use less fuel because the gasoline engine is smaller and runs at more efficient speeds than in a regular car. So they cut down on fuel costs and cause less air pollution.

In addition to hybrid cars, there has also been research on making cars lighter. The lighter a vehicle, the less energy it takes to power it, and it is also more cost efficient and better for the environment. Scientists and researchers have been experimenting with new materials borrowed from the aerospace industry, like ceramics and aluminum, in order to manufacture super-light cars. (金沢工業大)

□1 次の①～③の質問の答えとして最も適切なものを㉗～㉚の中から1つずつ選びなさい。

- ① Why are lighter cars better for the environment?  
 ② Why have scientists and researchers created environmentally friendly cars?  
 ③ What are hybrid cars?
- ㉗ Because many people want to buy cars that are better for the environment.  
 ㉘ Because they are experimenting with new materials such as ceramics and aluminum.  
 ㉙ Because they need less energy than heavier vehicles.  
 ㉚ Because they use more fuel than hybrid cars.  
 ㉛ They are cars that have two kinds of power systems.  
 ㉜ They are cars that run on gasoline and not on electric energy.

□2 次の日本語を参考に、各文の( )に適切な英語を書き入れなさい。

- ① 彼は私よりもはるかに背が高い。  
He is ( ) taller than I.  
 ② 今日は暑い。加えて、湿度が高い。  
It is very hot today. ( ) ( ), humidity is high.  
 ③ 彼女は話す能力を向上させるためにアメリカへ行った。  
She went to the U.S. ( ) ( ) ( ) improve her speaking ability.  
 ④ 私たちは両親に頼っている。  
We are ( ) ( ) our parents.  
 ⑤ この新車はあの車ほど燃料を使わない。  
This new car uses ( ) fuel ( ) that one.

□3 次の日本語を参考に、各文の( )内の語句を並べかえなさい。

- ① あなたが暇なときはいつでも、訪ねて来ていいですよ。  
(free / you / whenever / are), you can come to see me.  
.....  
② 高く登れば登るほど、空気は冷たくなる。  
(the / the / , / climb / we / higher) cooler the air becomes.  
.....  
③ その科学者はいつもオイルを使った実験をしてみている。  
The scientist (conducting / always / experiments / is) with some oil.

□4 次の各組の2つの文が同じか、ほぼ同じ意味になるよう( )に適切な英語を書き入れなさい。

- ① Jane did not appear. As he waited longer and longer, he became more and more irritated.  
Jane did not appear. ( ) ( ) he waited, ( ) ( ) irritated he became.  
 ② You can use my car at any time when you like.  
You can use my car ( ) you like.  
 ③ The students went to the library so that they could finish their homework.  
The students went to the library ( ) ( ) ( ) finish their homework.

□5 次の英文を日本語に訳しなさい。

The sooner he avoids the danger, not to escape our punishment, but as a matter of good sense, the better. (上智大)

5

アメリカ発見とコロンブス

手引き

コロンブスはアメリカの発見者といわれていましたが、本当にそうなのでしょうか。どうやらコロンブス以前に「発見した」人々がいたようです。archeologists(考古学者)の話聞いてみましょう。

When Columbus arrived in the Americas in 1492, there were already an estimated 30 to 40 million people living in North and South America. It has therefore been quite easy for some to refute the idea that Columbus "discovered" America. How and when these inhabitants came to America has been the source of much scientific research and discussion.

estimate  
見積もる

refute  
論破する  
inhabitant  
住民, 定住者

Most archeologists agree that the first Americans, the true "discoverers" of America, came from northeastern Asia. There is also a considerable amount of proof that inhabitants have been in the Americas for at least 15,000 years.

considerable  
かなりの  
proof  
証拠

To get to the Americas, these people had to cross over the 55-mile-wide Bering Strait that separates Asia and North America. According to one theory, these people crossed over during periods when a land bridge existed between the two continents. During the Ice Ages, so much of the Earth's water was frozen that the sea levels dropped, and it was possible to walk from Asia to North America.

theory  
理論  
continent  
大陸

(城西大)

□1 上の文を読み、各問いに答えなさい。

(1) 次の①と②の問いに対する答えとして、本文の内容と一致するものを1つずつ選びなさい。

- ① What is the author's main purpose? ( )
  - ㉞ To explain how Columbus discovered America.
  - ㉟ To show how people came to America before Columbus.
  - ㊱ To demonstrate the importance of northeastern Asia to archeologists.
  - ㊲ To explain how to cross the Bering Strait.
- ② In 1492, how many people were probably in the Americas? ( )
  - ㉞ Fewer than 30 million.                      ㉟ Exactly 30 million.
  - ㊱ 40 million or fewer.                      ㊲ At least 40 million.

(2) 下線部を日本語に訳しなさい。

.....  
.....

□2 次の各文の意味が通るように、( )内から適語を選びなさい。

- ① There are some boys (playing, played) soccer in the park.
- ② There was some milk (leaving, left) in the glass.
- ③ It is not easy (for, of) anyone to win a gold medal in the Olympic Games.
- ④ It is very kind (for, of) her to help the old woman.
- ⑤ The town (where, which) I was born is very small.
- ⑥ The town (where, which) I visited last month is very small.

□3 次の各問いの日本語を参考に、( )内に適語を1語ずつ入れなさい。

- ① このコンピューターを使うのは私には難しい。  
( ) is difficult ( ) me ( ) use this computer.
- ② 川で数人の人が釣りをしていた。  
( ) ( ) some people ( ) in the river.
- ③ あなたが住んでいる村に行ってみたい。  
I would like to visit the ( ) ( ) ( ) live.

□4 次の各問いの日本語を参考に、( )内の語を意味が通るように並べかえなさい。

- ① 今日はとても暑いから外出したくない。  
It is (today, I, hot, that, so) don't want to go out.

- ② 彼が一人旅をするのは危険ですか。  
(for, it, him, to, is, dangerous) travel alone?

□5 次の英文を日本語に訳しなさい。

My sister and I were so excited that we could hardly speak. (文京女子短大)

重要関連語句

migrate 移住する      émigrate (自国から他国へ)移住する      émigrant (外国への)移民  
immigrate (外国人が)移住する      immigrant (外国からの)移民      inhábit 住んでいる

## 6 「死」からの生還

### 手引き

人は必ず死ぬもの。しかし、どうにかして死から逃れたいと思うのは不可能な願望でしょうか。ここでの話はフロリダで起こった実際の話です。信じられますか。読んでみてください。

(A) Doctors in Miami, Florida, are amazed by what happened at Miami General Hospital recently. Marcus Gent, age 13, was officially “dead” for almost 7 hours, but doctors were able to bring him back to life.

amaze  
驚かす

5 (B) He was taken to Miami General Hospital where doctors tried to revive him. Doctors continued to try for such a long time because he was a young boy. They thought that because he had a strong body, he might be able to survive.

revive  
(人)を生き返らせる

(C) Marcus was swimming at the beach with some friends when he was pulled out by the sea currents. He couldn't swim very well and soon went under the water. His friends searched for him; lifeguards at the beach found his body about 20 minutes later.

survive  
生き残る

lifeguard  
監視員  
be listed as ~  
~と考えられている

10 (D) They were right. This is the first time that anyone was listed as “dead” for so many hours and came back to life. Marcus is in good condition, and doctors expect him to have only slight problems from this event.

slight  
わずかな

(大妻女子大)

□1 上の文を読み、各問いに答えなさい。

(1) 上のパラグラフ(A)~(D)を意味が通るように並べかえ、その順番を書きなさい。

(      →      →      →      )

(2) 次の質問に対する答えを完成しなさい。

① Was Marcus a good swimmer?

— (      ), he (      ).

② According to the passage, how long was Marcus “dead”?

— About (      ) (      ).

③ Have doctors ever had a lot of events like this?

— (      ), they (      ).

□2 次の各文の意味が通るように、( )内から適語を選びなさい。

- ① The girls were all amazed (by, for) the news.
- ② Is the old woman (at, in) good condition?
- ③ The old woman went (below, under) the water, but they saved her.
- ④ They took the old woman (at, to) the hospital.
- ⑤ Did the old woman come (back, over) to life?

□3 次の各問いの日本語を参考に、( )内に適語を1語ずつ入れなさい。

① その兵士は生きていたと考えられていた。

The soldier (      ) listed (      ) “(      ).”

② 彼らはその兵士を探し続けた。

They (      ) (      ) search (      ) the soldier.

③ 彼らはその兵士を森で見つけることができた。

They (      ) (      ) (      ) find the soldier in the woods.

④ 彼らが森で見つけたものは小さな家でした。

(      ) (      ) (      ) in the woods was a small house.

□4 次の英文を日本語に訳しなさい。

① Our ignorance, of course, has always been with us, and always will be. What is new is our awareness of it. (千葉大)

② Her nods and expressions of agreement indicate that he is not alone in his opinion and that therefore he is not merely self-centered. Rather, he is stating a truth, since at least one person agrees with what he says. (東京大)

#### 重要関連語句

physician 内科医    surgeon 外科医    nurse 看護師    patient 患者    opération 手術  
 medical care 医療    médecine 薬    physical examination 健康診断

ボランティア活動にはさまざまな活動があります。ここでは「私」が昨年の夏に行った活動を紹介しています。homeless という単語から分かるように、帰る家のない人たちのために働いたようです。

Last summer I was a volunteer at a shelter for the homeless, a place for homeless people to sleep at night. I wasn't working that summer. I was taking only two classes in summer school, so I had some free time.

shelter  
避難所

5 Three nights a week, I helped in the kitchen of the shelter. With four other volunteers, I planned and cooked a hot dinner for 45 people. We cooked meals with vegetables, chicken, fish and fruit. The homeless people needed this good food because many of them usually didn't eat well.

vegetable  
野菜

10 I enjoyed this volunteer work. The other volunteers in the kitchen were interesting people. We became friends. One was a very nice elderly housewife. One was a movie actor. Another was a young teacher. And the other was a college student, like me.

I talked to a lot of homeless people at the shelter. Some of them  
15 told me about their lives. Some had problems with alcohol or drugs. But others only had bad luck. One woman worked for almost 20 years for a small company. Then she lost her job. She looked and looked for a new job, but she couldn't find one. She was too old. She needed money for food, so she sold her  
20 furniture — sofas, chairs, and tables. The woman still couldn't find a job. She had no money for her apartment. She had to sleep in her car. Then she had to sell her car. She was alone, afraid, and homeless. Finally, she came to the shelter. (城西大)

drug  
麻薬  
company  
会社

furniture  
家具

□ 1 上の文を読み、各問いに答えなさい。

(1) 次の文の中で本文の内容と一致するものを1つ選び、( )内にTを書きなさい。

- ㉞ ( ) There were five volunteers at the shelter for the homeless.  
 ㉟ ( ) The writer did not find this work very interesting.  
 ㊱ ( ) The woman was so old that she didn't try to find a new job.

(2) 次の質問に対する答えを完成しなさい。

- ① How many times did the writer work at the shelter for the homeless?  
 — He or she worked ( ) times ( ) week.

- ② Did the writer work in the morning at the shelter for the homeless?  
 — ( ), he or she ( ).

□ 2 次の各文の意味が通るように、( )内から適語を選びなさい。

- ① The woman bought some (furniture, furnitures) at this department store.  
 ② I have to do some (homework, homeworks) after school today.  
 ③ The artist painted a lot of (work, works) of art here when he was young.  
 ④ Hurry up! There (are few times, is little time) left. The last train is about to leave.  
 ⑤ I've lost my pen. I have to buy (one, it).

□ 3 次の各問いの日本語を参考に、( )内に適語を1語ずつ入れなさい。

- ① 私には兄が2人いて、1人は長崎に、もう1人は東京に住んでいます。  
 I have two brothers: ( ) lives in Nagasaki and ( )  
 ( ) lives in Tokyo.  
 ② 私には姉が3人いて、1人はロンドンに、もう2人はシカゴに住んでいます。  
 I have three sisters: ( ) lives in London and ( )  
 ( ) live in Chicago.  
 ③ 生徒の中にはその計画に賛成する者もいれば、賛成しない者もいる。  
 ( ) students agree with the plan, but ( ) don't agree with it.  
 ④ このネクタイは気に入らない。別のものを見せてください。  
 I don't like this tie. Please show me ( ) one.  
 ⑤ その女性は年をとりすぎていて働くことができませんでした。  
 The woman was ( ) old ( ) work.

□ 4 次の英文を日本語に訳しなさい。

- ① Some birds limit the amount of space used for nests, while some insects eat their own eggs when crowding becomes too great. [和洋女子短大]

- ② At that time, my sister and I were too young to understand exactly what my father meant. [文京女子短大]

重要問題語句

quit a job 仕事をやめる    jobless 失業中の    job sharing 分担労働    employ 雇う  
 employee 従業員    employer 雇い主    social service 社会奉仕

人は年齢によって変化していきます。都市は、時代とともに変化していくものもあれば、変化しないものもあります。アメリカの都市はどうでしょうか。確認してみましょう。

American cities changed in many ways after World War II. Many people moved out of the city. They moved to the suburbs, the areas around a city. Most of the people who moved were rich. Poor people usually did not have enough money to move. They stayed in the cities.

suburb  
郊外

(A) But money was only a part of the problem. Many people believed that American cities were dying. They had good reason to believe this. City streets were sadly empty. Many neighborhoods and parks were dirty and dangerous. In some places buildings were falling down. And nobody seemed to care. This was the real problem. Most of the people and businesses with money were in the suburbs. They did not care what happened to the cities.

empty  
人通りのない  
neighborhood  
地域、区域

(B) During the 1950s there was another important change in American cities. Businesses began to leave the city, too. They left because the people in the city were poorer. Poor people do not have much money to buy things. So many shops and restaurants moved out to the suburbs. People in the suburbs had much money to spend.

(C) Cities began to have many serious problems. The rich people and the businesses did not pay city taxes any more. The poor people could not pay much money in taxes. So cities had less money for schools and housing. Sometimes they could not pay their police officers or firefighters. And they could not take good care of their streets and parks.

serious  
深刻な

firefighter  
消防士

(大妻女子大)

□1 上の文を読み、各問いに答えなさい。

(1) 上のパラグラフ(A)~(C)を意味が通るように並べかえ、その順番を書きなさい。

(      →      →      )

(2) 下線部 this の内容として正しいものを㉑~㉓から1つ選びなさい。

(      )

㉑都市の問題ではお金が重要であるということ。

㉒アメリカの都市が死にかけているということ。

㉓アメリカの都市の通りは人通りがないということ。

□2 次の各問いの( )内の語を、意味が通るように並べかえなさい。

① The girl (good, of, care, took) her mother.

② Does the city (less, for, have, money) street children this year?

③ (seems, help, nobody, to) the injured dog.

□3 次の各問いの日本語を参考に、( )内に適語を1語ずつ入れなさい。

① その少年は本を買うお金が十分なかった。

The boy didn't have (      ) (      ) (      ) buy a book.

② 少年は町を出て行った。

The boy (      ) (      ) (      ) the town.

③ 私には父親を誇る十分な理由がある。

I (      ) (      ) (      ) to be proud of my father.

④ その古い城には何が起こったのですか。

(      ) (      ) (      ) the old castle?

□4 次の英文を日本語に訳しなさい。

① Japanese and American mothers seem to spend almost the same amount of time in caretaking activities when their babies are awake. [桜美林大]

② It seems that psychologists have cured millions of people of depression, but not necessarily made them happy — an important difference. [中央大]

## 重要関連語句

city hall 市役所      máyor 市長      city planning 都市計画      construcción 建設  
infrastructure 基礎となる施設、インフラ      inhábitant 住民