**Deer Populations of the Puget Sound**

Two species of deer have been prevalent in the Puget Sound area of Washington State in the Pacific Northwest of the United States. The black-tailed deer, a lowland, west-side cousin of the mule deer of eastern Washington, is now the most common. The other species, the Columbian white-tailed deer, in earlier times was common in the open prairie country; it is now restricted to the low, marshy islands and flood plains along the lower Columbia River.

Nearly any kind of plant of the forest understory can be part of a deer's diet. Where the forest inhibits the growth of grass and other meadow plants, the black-tailed deer browses on huckleberry, salal, dogwood, and almost any other shrub or herb. But this is fair-weather feeding. What keeps the black-tailed deer alive in the harsher seasons of plant decay and dormancy? One compensation for not hibernating is the built-in urge to migrate. Deer may move from high-elevation browse areas in summer down to the lowland areas in late fall. Even with snow on the ground, the high bushy understory is exposed; also snow and wind bring down leafy branches of cedar, hemlock, red alder, and other arboreal fodder.

The numbers of deer have fluctuated markedly since the entry of Europeans into Puget Sound country. The early explorers and settlers told of abundant deer in the early 1800s and yet almost in the same breath bemoaned the lack of this succulent game animal. Famous explorers of the north American frontier, Lewis and Clark arrived at the mouth of the Columbia River on November 14, 1805, in nearly starved circumstances. They had experienced great difficulty finding game west of the Rockies and not until the second of December did they kill their first elk. To keep 40 people alive that winter, they consumed approximately 150 elk and 20 deer. And when game moved out of the lowlands in early spring, the expedition decided to return east rather than face possible starvation. Later on in the early years of the nineteenth century, when Fort Vancouver became the headquarters of the Hudson's Bay Company, deer populations continued to fluctuate. David Douglas, Scottish botanical explorer of the 1830s, found a disturbing change in the animal life around the fort during the period between his first visit in 1825 and his final contact with the fort in 1832. A recent Douglas biographer states:" The deer which once picturesquely dotted the meadows around the fort were gone [in 1832], hunted to extermination in order to protect the crops."

Reduction in numbers of game should have boded ill for their survival in later times. A worsening of the plight of deer was to be expected as settlers encroached on the land, logging, burning, and clearing, eventually replacing a wilderness landscape with roads, cities, towns, and factories. No doubt the numbers of deer declined still further. Recall the fate of the Columbian white-tailed deer, now in a protected status. But for the black-tailed deer, human pressure has had just the opposite effect. Wildlife zoologist Helmut Buechner(1953), in reviewing the nature of biotic changes in Washington through recorded time, says that "since the early 1940s, the state has had more deer than at any other time in its history, the winter population fluctuating around approximately 320,000 deer (mule and black-tailed deer), which will yield about 65,000 of either sex and any age annually for an indefinite period."

The causes of this population rebound are consequences of other human actions. First, the major predators of deer—wolves, cougar, and lynx—have been greatly reduced in numbers. Second, conservation has been insured by limiting times for and types of hunting. But the most profound reason for the restoration of high population numbers has been the fate of the forests. Great tracts of lowland country deforested by logging, fire, or both have become ideal feeding grounds of deer. In addition to finding an increase of suitable browse, like huckleberry and vine maple, Arthur Einarsen, longtime game biologist in the Pacific Northwest, found quality of browse in the open areas to be substantially more nutritive. The protein content of shade-grown vegetation, for example, was much lower than that for plants grown in clearings.

According to paragraph 1, which of the following is true of the white-tailed deer of Puget Sound?

|  |  |
| --- | --- |
| A | It is native to lowlands and marshes. |
| B | It is more closely related to the mule deer of eastern Washington than to other types of deer. |
| C | It has replaced the black-tailed deer in the open prairie. |
| D | It no longer lives in a particular type of habitat that it once occupied. |

It can be inferred from the discussion in paragraph 2 that winter conditions

|  |  |
| --- | --- |
| A | cause some deer to hibernate |
| B | make food unavailable in the highlands for deer |
| C | make it easier for deer to locate understory plants |
| D | prevent deer from migrating during the winter |

The word "inhibits" in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | consists of |
| B | combines |
| C | restricts |
| D | establishes |

The phrase "in the same breath" in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | impatiently |
| B | humorously |
| C | continuously |
| D | immediately |

The author tells the story of the explorers Lewis and Clark in paragraph 3 in order to illustrate which of the following points?

|  |  |
| --- | --- |
| A | The number of deer within the Puget Sound region has varied over time. |
| B | Most of the explorers who came to the Puget Sound area were primarily interested in hunting game. |
| C | There was more game for hunting in the East of the United States than in the West. |
| D | Individual explorers were not as successful at locating games as were the trading companies. |

According to paragraph 3, how had Fort Vancouver changed by the time David Douglas returned in 1832?

|  |  |
| --- | --- |
| A | The fort had become the headquarters for the Hudson's Bay Company. |
| B | Deer had begun populating the meadows around the fort. |
| C | Deer populations near the fort had been destroyed. |
| D | Crop yields in the area around the fort had decreased. |

Why does the author ask readers to recall “the fate of the Columbian white-tailed deer” in the discussion of changes in the wilderness landscape?

|  |  |
| --- | --- |
| A | To provide support for the idea that habitat destruction would lead to population decline |
| B | To compare how two species of deer caused biotic changes in the wilderness environment |
| C | To provide an example of a species of deer that has successfully adapted to human settlement |
| D | To argue that some deer species must be given a protected status |

The phrase “indefinite period” in the passage is closest in meaning to period

|  |  |
| --- | --- |
| A | whose end has not been determined |
| B | that does not begin when expected |
| C | that lasts only briefly |
| D | whose importance remains unknown |

Which of the following statements about deer populations is supported by the information in paragraph 4?

|  |  |
| --- | --- |
| A | Deer populations reached their highest point during the 1940s and then began to decline. |
| B | The activities of settlers contributed in unexpected ways to the growth of some deer populations in later times. |
| C | The clearing of wilderness land for construction caused biotic changes from which the black-tailed deer population has never recovered. |
| D | Since the 1940s the winter populations of deer have fluctuated more than the summer populations have. |

The word “rebound” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | decline |
| B | recovery |
| C | exchange |
| D | movement |

Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

|  |  |
| --- | --- |
| A | Arthur Einarsen's longtime familiarity with the Pacific Northwest helped him discover areas where deer had an increase in suitable browse. |
| B | Arthur Einarsen found that deforested feeding grounds provided deer with more and better food. |
| C | Biologist like Einarsen believe it is important to find additional open areas with suitable browse for deer to inhabit. |
| D | According to Einarsen, huckleberry and vine maple are examples of vegetation that may someday improve the nutrition of deer in the open areas of the Pacific Northwest. |

Which of the following is NOT mentioned in paragraph 5 as a factor that has increased deer populations?

|  |  |
| --- | --- |
| A | A reduction in the number of predators |
| B | Restrictions on hunting |
| C | The effects of logging and fire |
| D | Laws that protected feeding grounds of deer |

There food is available and accessible throughout the winter.

|  |  |
| --- | --- |
| A | 1 |
| B | 2 |
| C | 3 |
| D | 4 |

**Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

Deer in the Puget Sound area eat a wide variety of foods and migrate seasonally food.

**1**The balance of deer species in the Puget Sound region has changed over time, with the Columbian white-tailed deer now outnumbering other types of deer.

**2**Deer populations naturally fluctuate, but early settlers in the Puget Sound environment caused an overall decline in the deer populations of the areas at that time.

**3**In the long term, black-tailed deer in the Puget Sound area have benefitted from human activities through the elimination of their natural predators, and more and better food in deforested areas.

**4**Because Puget Sound deer migrate, it was and still remains difficult to determine accurately how many deer are living at any one time in the western United States.

**5**Although it was believed that human settlement of the American West would cause the total number of deer to decrease permanently, the opposite has occurred for certain types of deer.

**6**Wildlife biologists have long been concerned that the loss of forests may create nutritional deficiencies for deer.

**Cave Art in Europe**

The earliest discovered traces of art are beads and carvings, and then paintings, from sites dating back to the Upper Paleolithic period. We might expect that early artistic efforts would be crude, but the cave paintings of Spain and southern France show a marked degree of skill. So do the naturalistic paintings on slabs of stone excavated in southern Africa. Some of those slabs appear to have been painted as much as 28,000 years ago, which suggests that painting in Africa is as old as painting in Europe. But painting may be even older than that. The early Australians may have painted on the walls of rock shelters and cliff faces at least 30,000 years ago, and maybe as much as 60,000 years ago.

The researchers Peter Ucko and Andree Rosenfeld identified three principal locations of paintings in the caves of western Europe: (1) in obviously inhabited rock shelters and cave entrances; (2) in galleries immediately off the inhabited areas of caves; and (3) in the inner reaches of caves, whose difficulty of access has been interpreted by some as a sign that magical-religious activities were performed there.

The subjects of the paintings are mostly animals. The paintings rest on bare walls, with no backdrops or environmental trappings. Perhaps, like many contemporary peoples, Upper Paleolithic men and women believed that the drawing of a human image could cause death or injury, and if that were indeed their belief, it might explain why human figures are rarely depicted in cave art. Another explanation for the focus on animals might be that these people sought to improve their luck at hunting. This theory is suggested by evidence of chips in the painted figures, perhaps made by spears thrown at the drawings. But if improving their hunting luck was the chief motivation for the paintings, it is difficult to explain why only a few show signs of having been speared. Perhaps the paintings were inspired by the need to increase the supply of animals. Cave art seems to have reached a peak toward the end of the Upper Paleolithic period, when the herds of game were decreasing.

The particular symbolic significance of the cave paintings in southwestern France is more explicitly revealed, perhaps, by the results of a study conducted by researchers Patricia Rice and Ann Paterson. The data they present suggest that the animals portrayed in the cave paintings were mostly the ones that the painters preferred for meat and for materials such as hides. For example, wild cattle (bovines) and horses are portrayed more often than we would expect by chance, probably because they were larger and heavier (meatier) than other animals in the environment. In addition, the paintings mostly portray animals that the painters may have feared the most because of their size, speed, natural weapons such as tusks and horns, and the unpredictability of their behavior. That is, mammoths, bovines, and horses are portrayed more often than deer and reindeer. Thus, the paintings are consistent with the idea that the art is related to the importance of hunting in the economy of Upper Paleolithic people. Consistent with this idea, according to the investigators, is the fact that the art of the cultural period that followed the Upper Paleolithic also seems to reflect how people got their food. But in that period, when getting food no longer depended on hunting large game animals (because they were becoming extinct), the art ceased to focus on portrayals of animals.

Upper Paleolithic art was not confined to cave paintings. Many shafts of spears and similar objects were decorated with figures of animals. The anthropologist Alexander Marshack has an interesting interpretation of some of the engravings made during the Upper Paleolithic. He believes that as far back as 30,000 B.C., hunters may have used a system of notation, engraved on bone and stone, to mark phases of the Moon. If this is true, it would mean that Upper Paleolithic people were capable of complex thought and were consciously aware of their environment. In addition to other artworks, figurines representing the human female in exaggerated form have also been found at Upper Paleolithic sites. It has been suggested that these figurines were an ideal type or an expression of a desire for fertility.

The word “marked” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | considerable |
| B | surprising |
| C | limited |
| D | adequate |

Paragraph 1 supports which of the following statements about painting in Europe?

|  |  |
| --- | --- |
| A | It is much older than painting in Australia. |
| B | It is as much as 28,000 years old. |
| C | It is not as old as painting in southern Africa. |
| D | It is much more than 30,000 years old. |

The word “principal” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | major |
| B | likely |
| C | well protected |
| D | distinct |

According to paragraph 2, what makes some researchers think that certain cave paintings were connected with magical-religious activities?

|  |  |
| --- | --- |
| A | The paintings were located where many people could easily see them, allowing groups of people to participate in the magical-religious activities. |
| B | Upper Paleolithic people shared similar beliefs with contemporary peoples who use paintings of animals in their magical-religious rituals. |
| C | Evidence of magical-religious activities has been found in galleries immediately off the inhabited areas of caves. |
| D | The paintings were found in hard-to-reach places away from the inhabited parts of the cave. |

The word “trappings” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | conditions |
| B | problems |
| C | influences |
| D | decorations |

Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

|  |  |
| --- | --- |
| A | Upper Paleolithic people, like many contemporary peoples, believed that if they drew a human image in their cave art, it would cause death or injury. |
| B | Many contemporary peoples believe that the drawing of a human image can cause death or injury, so they, like Upper Paleolithic people, rarely depicted human figures in their cave art. |
| C | If Upper Paleolithic people, like many contemporary peoples, believed that the drawing of a human image could cause death or injury, this belief might explain why human figures are rarely depicted in cave art. |
| D | Although many contemporary peoples believe that the drawing of a human image can cause death or injury, researchers cannot explain why Upper Paleolithic people rarely depicted human figures in their cave art. |

According to paragraph 3, scholars explained chips in the painted figures of animals by proposing that

|  |  |
| --- | --- |
| A | Upper Paleolithic artists used marks to record the animals they had seen |
| B | the paintings were inspired by the need to increase the supply of animals for hunting |
| C | the artists had removed rough spots on the cave walls |
| D | Upper Paleolithic people used the paintings to increase their luck at hunting |

Why does the author mention that Upper Paleolithic cave art seemed to have “reached a peak toward the end of the Upper Paleolithic period, when the herds of game were decreasing”?

|  |  |
| --- | --- |
| A | To argue that Upper Paleolithic art ceased to include animals when herds of game became scarce |
| B | To provide support for the idea that the aim of the paintings was to increase the supply of animals for hunting |
| C | To emphasize the continued improvement in the quality of cave art throughout the Upper Paleolithic period |
| D | To show the direct connection between the decrease in herds of game and the end of the Upper Paleolithic period |

According to paragraph 4, scholars believe that wild cattle, horses, and mammoths are the animals most frequently portrayed in cave paintings for all of the following reasons EXCEPT:

|  |  |
| --- | --- |
| A | These animals were difficult to hunt because their unpredictable behavior. |
| B | People preferred these animals for their meat and for their skins. |
| C | The painters admired the beauty of these large animals. |
| D | People feared these animals because of their size and speed. |

According to paragraph 4, which of the following may best represent the attitude of hunters toward deer and reindeer in the Upper Paleolithic period?

|  |  |
| --- | --- |
| A | Hunters did not fear deer and reindeers as much as they did large game animals such as horses and mammoths. |
| B | Hunters were not interested in hunting deer and reindeer because of their size and speed. |
| C | Hunters preferred the meat and hides of deer and reindeer to those of other animals. |
| D | Hunters avoided deer and reindeer because of their natural weapons, such as horns. |

According to paragraph 4, what change is evident in the art of the period following the Upper Paleolithic?

|  |  |
| --- | --- |
| A | This new art starts to depict small animals rather than large ones. |
| B | This new art ceases to reflect the ways in which people obtained their food. |
| C | This new art no longer consists mostly of representations of animals. |
| D | This new art begins to show the importance of hunting to the economy. |

According to paragraph 5, which of the following has been used as evidence to suggest that Upper Paleolithic people were capable of complex thought and conscious awareness of their environment?

|  |  |
| --- | --- |
| A | They engraved animal figures on the shafts of spears and other objects. |
| B | They may have used engraved signs to record the phases of the Moon. |
| C | Their figurines represented the human female in exaggerated form. |
| D | They may have used figurines to portray an ideal type or to express a desire for fertility. |

Therefore, if the paintings were connected with hunting, some other explanation is needed.

|  |  |
| --- | --- |
| A | 1 |
| B | 2 |
| C | 3 |
| D | 4 |

**Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that explain the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

Upper Paleolithic cave paintings in Western Europe are among humanity's earliest artistic efforts.

**1**Researchers have proposed several different explanations for the fact that animals were the most common subjects in the cave paintings.

**2**The art of the cultural period that followed the Upper Paleolithic ceased to portray large game animals and focused instead on the kinds of animals that people of that period preferred to hunt.

**3**Some researchers believe that the paintings found in France provide more explicit evidence of their symbolic significance than those found in Spain, southern Africa, and Australia.

**4**The cave paintings focus on portraying animals without also depicting the natural environments in which these animals are typically found.

**5**Some researchers have argued that the cave paintings mostly portrayed large animals that provided Upper Paleolithic people with meat and materials.

**6**Besides cave paintings, Upper Paleolithic people produced several other kinds of artwork, one of which has been thought to provide evidence of complex thought.

**Petroleum Resources**

Petroleum, consisting of crude oil and natural gas, seems to originate from organic matter in marine sediment. Microscopic organisms settle to the seafloor and accumulate in marine mud. The organic matter may partially decompose, using up the dissolved oxygen in the sediment. As soon as the oxygen is gone, decay stops and the remaining organic matter is preserved.

Continued sedimentation—the process of deposits’ settling on the sea bottom—buries the organic matter and subjects it to higher temperatures and pressures, which convert the organic matter to oil and gas. As muddy sediments are pressed together, the gas and small droplets of oil may be squeezed out of the mud and may move into sandy layers nearby. Over long periods of time (millions of years), accumulations of gas and oil can collect in the sandy layers. Both oil and gas are less dense than water, so they generally tend to rise upward through water-saturated rock and sediment.

Oil pools are valuable underground accumulations of oil, and oil fields are regions underlain by one or more oil pools. When an oil pool or field has been discovered, wells are drilled into the ground. Permanent towers, called derricks, used to be built to handle the long sections of drilling pipe. Now portable drilling machines are set up and are then dismantled and removed. When the well reaches a pool, oil usually rises up the well because of its density difference with water beneath it or because of the pressure of expanding gas trapped above it. Although this rise of oil is almost always carefully controlled today, spouts of oil, or gushers, were common in the past. Gas pressure gradually dies out, and oil is pumped from the well. Water or steam may be pumped down adjacent wells to help push the oil out. At a refinery, the crude oil from underground is separated into natural gas, gasoline, kerosene, and various oils. Petrochemicals such as dyes, fertilizer, and plastic are also manufactured from the petroleum.

As oil becomes increasingly difficult to find, the search for it is extended into more-hostile environments. The development of the oil field on the North Slope of Alaska and the construction of the Alaska pipeline are examples of the great expense and difficulty involved in new oil discoveries. Offshore drilling platforms extend the search for oil to the ocean's continental shelves—those gently sloping submarine regions at the edges of the continents. More than one-quarter of the world's oil and almost one-fifth of the world's natural gas come from offshore, even though offshore drilling is six to seven times more expensive than drilling on land. A significant part of this oil and gas comes from under the North Sea between Great Britain and Norway.

Of course, there is far more oil underground than can be recovered. It may be in a pool too small or too far from a potential market to justify the expense of drilling. Some oil lies under regions where drilling is forbidden, such as national parks or other public lands. Even given the best extraction techniques, only about 30 to 40 percent of the oil in a given pool can be brought to the surface. The rest is far too difficult to extract and has to remain underground.

Moreover, getting petroleum out of the ground and from under the sea and to the consumer can create environmental problems anywhere along the line. Pipelines carrying oil can be broken by faults or landslides, causing serious oil spills. Spillage from huge oil-carrying cargo ships, called tankers, involved in collisions or accidental groundings (such as the one off Alaska in 1989) can create oil slicks at sea. Offshore platforms may also lose oil, creating oil slicks that drift ashore and foul the beaches, harming the environment. Sometimes, the ground at an oil field may subside as oil is removed. The Wilmington field near Long Beach, California, has subsided nine meters in 50 years; protective barriers have had to be built to prevent seawater from flooding the area. Finally, the refining and burning of petroleum and its products can cause air pollution. Advancing technology and strict laws, however, are helping control some of these adverse environmental effects.

The word “accumulate” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | grow up |
| B | build up |
| C | spread out |
| D | break apart |

According to paragraph 1, which of the following is true about petroleum formation?

|  |  |
| --- | --- |
| A | Microscopic organisms that live in mud produce crude oil and natural gas. |
| B | Large amounts of oxygen are needed for petroleum formation to begin. |
| C | Petroleum is produced when organic material in sediments combines with decaying marine organisms. |
| D | Petroleum formation appears to begin in marine sediments where organic matter is present. |

In paragraphs 1 and 2, the author's primary purpose is to

|  |  |
| --- | --- |
| A | describe how petroleum is formed |
| B | explain why petroleum formation is a slow process |
| C | provide evidence that a marine environment is necessary for petroleum formation |
| D | show that oil commonly occurs in association with gas |

Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

|  |  |
| --- | --- |
| A | Higher temperatures and pressures promote sedimentation, which is responsible for petroleum formation. |
| B | Deposits of sediments on top of organic matter increase the temperature of and pressure on the matter. |
| C | Increase pressure and heat from the weight of the sediment turn the organic remains into petroleum. |
| D | The remains of microscopic organisms transform into petroleum once they are buried under mud. |

The word “adjacent” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | nearby |
| B | existing |
| C | special |
| D | deep |

Which of the following can be inferred from paragraph 3 about gushers?

|  |  |
| --- | --- |
| A | They make bringing the oil to the surface easier. |
| B | They signal the presence of huge oil reserves. |
| C | They waste more oil than they collect. |
| D | They are unlikely to occur nowadays. |

Which of the following strategies for oil exploration is described in paragraph 4?

|  |  |
| --- | --- |
| A | Drilling under the ocean's surface |
| B | Limiting drilling to accessible locations |
| C | Using highly sophisticated drilling equipment |
| D | Constructing technologically advanced drilling platforms |

What does the development of the Alaskan oil field mentioned in paragraph 4 demonstrate?

|  |  |
| --- | --- |
| A | More oil is extracted from the sea than from land. |
| B | Drilling for oil requires major financial investments. |
| C | The global demand for oil has increased over the years. |
| D | The North Slope of Alaska has substantial amounts of oil. |

The word “sloping” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | shifting |
| B | inclining |
| C | forming |
| D | rolling |

According to paragraph 5, the decision to drill for oil depends on all of the following factors EXCEPT

|  |  |
| --- | --- |
| A | permission to access the area where oil has been found |
| B | the availability of sufficient quantities of oil in a pool |
| C | the location of the market in relation to the drilling site |
| D | the political situation in the region where drilling would occur |

The word “foul” in the passage is closest in meaning to

|  |  |
| --- | --- |
| A | reach |
| B | flood |
| C | pollute |
| D | alter |

In paragraph 6, the author's primary purpose is to

|  |  |
| --- | --- |
| A | provide examples of how oil exploration can endanger the environment |
| B | describe accidents that have occurred when oil activities were in progress |
| C | give an analysis of the effects of oil spills on the environment |
| D | explain how technology and legislation help reduce oil spills |

Unless something acts to halt this migration, these natural resources will eventually reach the surface.

|  |  |
| --- | --- |
| A | 1 |
| B | 2 |
| C | 3 |
| D | 4 |

**Directions:** An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

“Petroleum” is a broad term that includes both crude oil and natural gas.

**1**Petroleum formation is the result of biological as well as chemical activity.

**2**The difficulty of finding adequate sources of oil on land has resulted in a greater number of offshore drilling sites.

**3**Petroleum extraction can have a negative impact on the environment.

**4**Petroleum tends to rise to the surface, since it is lower in density than water.

**5**Current methods of petroleum extraction enable oil producers to recover about half of the world’s petroleum reserves.

**6**Accidents involving oil tankers occur when tankers run into shore reefs or collide with other vessels.