

Airborne Wind Power

Fill the gaps in the sentences with the correct words.

The world demands cleaner, 1. *low-cost* alternatives to 2. *fossil fuels*.

For the first time, 3. *affordable* wind energy can be delivered to the 4. *furthest* points of the earth.

Winds a thousand, two thousand feet above the ground are, 5. *on average*, five to eight times as 6. *powerful* as what you get near to the ground.

The BAT uses an 7. *inflatable* helium shell to lift a 8. *lightweight* turbine into the air.

Power is sent to the ground using high-strength 9. *conductive* tethers.

The BAT also offers a unique platform 10. *to expand* internet and phone services, weather 11. *monitoring* and much more.

It is really exciting because it goes 12. *beyond* the incremental improvements we've seen in wind [power], and offers a 13. *breakthrough* way to bring wind power to millions of new 14. *customers* around the world.

Less expensive, more 15. *flexible*, and significantly more efficient, the BAT is the next generation of wind power.

Electric Bikes in New York

1. How many types of violation does the introduction mention concerning electric bikes?

- a) two
- b) three
- c) four**

2. What caused the mayor to take action against the riders?

- a) a TV report
- b) a radio program**
- c) public protests

3. What is the business manager of Francesco's attitude to the new law?

- a) upset
- b) hostile
- c) resigned**

4. Which one of these sentences is not true?

- a) Electric bikes are not legal in New York.
- b) The NYPD cannot take any action against the bike riders.**
- c) The riders do not have insurance for the bikes.

5. What point does the Upper West Side resident make when she is interviewed?

- a) The mayor is doing the right thing.
- b) People give extravagant tips when food is delivered.
- c) The delivery service riders are underpaid.**

6. What could happen to you now in New York if you ride an electric bike?

- a) nothing
- b) You could lose your job.
- c) You might have to pay \$500.**

Future Airbus Cabins

Fill the gaps with the correct words.

Passenger comfort has been constantly increasing since 1. *the nineteen sixties / the 1960s*.

In the future passenger cabins will, of course, be 2. *ecological*, and will not use 3. *non-renewable* materials like metal and plastic.

The materials will be recyclable plant fibres that can be grown to a 4. *desired* 5. *shape*.

They will be self-cleaning and some may even be designed to repair themselves in case of 6. *impact*.

In fact most of the aircraft's components could have several different physical states. They could be 7. *opaque* or transparent, or could change their 8. *shape* like the 9. *limbs* of living creatures.

You could enjoy the seclusion of a private cabin that can turn into an 10. *office* or a bedroom or anything else you want thanks to 11. *virtual* 12. *decor* 13. *projection*.

NASA Discovers Organics on Mars

1. Which one of these sentences is not true?

- a) It is difficult to find traces of organic molecules on the surface of Mars.
- b) Carbon is an essential element for life on Earth.
- c) Organic molecules are always associated with living matter.**

2. Where did Curiosity land on Mars?

- a) on a mountain
- b) in a crater**
- c) in a valley

3. The ... of the rocks makes SAM's recent discovery of organic molecules exciting.

- a) nature
- b) location
- c) age**

4. What is said to be a common factor in hair, fingernails and vulcanized rubber?

- a) oxidation
- b) sulfur**
- c) carbon

5. Rock samples taken by SAM were ...

- a) cooled.
- b) crushed.
- c) vaporized.**

6. The biological origin of organics found on Mars is ...

- a) exciting.
- b) confirmed.
- c) not certain.**

Shipbreaking in Bangladesh

1. According to the video, oil tankers need recycling after ... years.

- a) 15-20
- b) 25-30**
- c) 35-40

2. Which one of these is not given as a reason for Bangladesh's importance in shipbreaking?

- a) cheap labour
- b) suitable coastlines**
- c) low environmental standards

3. What is said to be 'everywhere'?

- a) oil
- b) radioactive material
- c) asbestos**

4. Which one of the following is not mentioned as a risk for workers who are cutting inside the ship?

- a) inhaling toxic substances
- b) falling metal structures**
- c) explosions

5. How many workers died in 2012 compared to 2011?

- a) the same number**
- b) fewer
- c) more

6. In the conclusion, it is said that ...

- a) **toxic materials should be removed before the tankers arrive in Bangladesh.**
- b) the Bangladeshi government must impose stricter regulations for shipbreaking.
- c) the shipowners should pay compensation when deaths occur.

Technology and Inequality

(to do)

The History of Hot-Air Ballooning

- 1) F
- 2) T
- 3) F
- 4) F
- 5) F
- 6) T
- 7) F
- 8) T
- 9) T
- 10) T

The Irish Sport of Hurling

1. How many players are there in a hurling team?

- a) 11
- b) 12
- c) **15**

2. What is said about the posts?

- a) They are like those in football.
- b) They are unlike those in football or rugby.
- c) **They are like those in rugby.**

3. What is the difference between the field dimensions in hurling and Gaelic football?

- a) Hurling fields are bigger.
- b) Gaelic football fields are wider.
- c) **There isn't a difference.**

4. How can you legitimately pass the ball with your hand in hurling?

- a) You can't.
- b) **You can do it if you slap it with an open palm.**
- c) You can do it only if it has been in your hand for less than five seconds.

5. Can you make shoulder contact with a player who doesn't have the ball?

a) It depends.

b) Yes, always.

c) No, never.

6. What is said to be characteristic of hurling?

a) It is impossible to understand for outsiders.

b) Games are fast and have high scores.

c) It is dangerous and there are many injuries.

Training Wild Horses

1. Who can adopt Arizona's wild horses?

a) the general public

b) government agencies

c) both the general public and government agencies

2. Which state has the most wild horses?

a) Arizona

b) Nevada

c) Wyoming

3. For Randy Helm, the most valuable thing an inmate can get from the program is ...

a) a sense of accomplishment

b) a trade

c) payment for the work

4. There are ... places on the program to satisfy the demand from inmates.

a) plenty of

b) just enough

c) too few

5. The inmate sees his role as ... the horses.

a) educating

b) breaking

c) mastering

6. How long does it take before the horses can be ridden?

a) one month

b) two or three months

c) six months to a year

Twins in Space

- 1) T
- 2) T
- 3) F
- 4) F
- 5) F
- 6) T

What is Fracking?

1. According to the video, which sentence is true?
 - a) Fracking is like sucking fossil fuels with a straw.
 - b) The advantage of fracking is that it is a fast process.
 - c) Shale contains distributions of oil and gas.**

2. What does the figure 7,700 feet represent?
 - a) the USA's deepest fracking well
 - b) a fairly average depth for a fracking well**
 - c) the optimal depth of a fracking well

3. What does fracking fluid mainly consist of?
 - a) water**
 - b) acids and gels
 - c) proppants

4. What is the role of proppants?
 - a) They create cracks in the rock.
 - b) They help oil and gas escape into the well.**
 - c) They allow the miners to apply more pressure.

5. Which one of these possible harmful effects of fracking is not mentioned in the video?
 - a) groundwater contamination
 - b) earthquakes
 - c) air pollution**