

Readings

1. 다음 글의 제목으로 가장 적절한 것은?

Whenever you stand on a scale in your bathroom or place a melon on a scale at the grocery store, you are measuring weight. An object's weight is the force exerted on it by gravity, usually the earth's gravity. When you stand on a bathroom scale, the scale measures just how much upward force it must exert on you in order to keep you from moving downward toward the earth's center. As in most scales you will encounter, the bathroom scale uses a spring to provide this upward support. If you are stationary, you are not accelerating, so your downward weight and the upward force from the spring must cancel one another; that is, they must be equal in magnitude but opposite in direction so that they sum to zero net force.

* exert 행사하다

- a) Selecting a Good Scale
- b) The Best Way to Measure Your Weight
- c) Weight: Two Forces in Balance
- d) The Earth's Gravity: A Mysterious Power
- e) How to Control your Weight

2. 다음 빈칸에 들어갈 말로 가장 적절한 것은?

During the hundreds of millions of years that plants have been living on our planet, they have become amazingly self-sufficient. In addition to establishing a useful relationship with the sun, plants have learned _____. When plants die, they seem to just fall on the ground and rot, getting eaten by many bugs and worms. However, researchers were shocked to discover that dead plants get consumed only by particular bacteria and fungi. Plants know how to attract to their own rotting only those microorganisms and earthworms that will produce beneficial minerals for the soil where the plants' siblings will grow. One way plants attract particular microorganisms into their soil is by concentrating more sugars in their roots. Thus roots such as carrots and potatoes are always much sweeter than the rest of the plant. Apparently, the quality of the soil is critically important, not only as a source of water and minerals for plants but for their very survival.

- a) to extend their lifespan
- b) to grow their own soil
- c) to consume microorganisms
- d) to survive attacks of bacteria
- e) to keep the environment clean

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3. 다음 빈칸에 들어갈 말로 가장 적절한 것은?

Some people believe that _____ is some kind of instinct, developed because it benefits our species in some way. At first, this seems like a strange idea: Darwin's theories of evolution presume that individuals should act to preserve their own interests, not those of the species as a whole. But the British evolutionary biologist Richard Dawkins believes that natural selection has given us the ability to feel pity for someone who is suffering. When humans lived in small clan-based groups, a person in need would be a relative or someone who could pay you back a good turn later, so taking pity on others could benefit you in the long run. Modern societies are much less close-knit and when we see a heartfelt appeal for charity, chances are we may never even meet the person who is suffering but the emotion of pity is still in our genes.

* preserve: 보존하다 ** clan: 씨족, 집단
*** charity: 자선

- a) not wanting to suffer
- b) giving to charity
- c) drawing pity from others
- d) exploring alternatives
- e) pursuing individual interests

4. 다음 빈칸에 들어갈 말로 적절한 것은?

In a classic set of studies over a ten-year period, biologist Gerald Wilkinson found that, when vampire bats return to their communal nests from a successful night's foraging, they frequently vomit blood and share it with other nest-mates, including even non-relatives. The reason, it turns out, is that blood-sharing greatly improves each bat's chances of survival. A bat that fails to feed for two nights is likely to die. Wilkinson showed that the blood donors are typically sharing their surpluses and, in so doing, are saving unsuccessful foragers that are close to starvation. So the costs are relatively low and the benefits are relatively high. Since no bat can be certain of success on any given night, it is likely that the donor will itself eventually need help from some nest-mate. In effect, the vampire bats have created a kind of _____.

* forage: 먹이를 찾아다니다
** surplus: 잉여, 흑자, *** starvation: 굶주림

- a) complex social hierarchy
- b) ecological diversity
- c) mutual insurance system
- d) parasitic relationship
- e) effective reproduction process