

Lesson 02 Biomimetics

バイオミメティクス①

- (1) Nature helps us create new technologies.
- (2) These technologies are called biomimetics.
- (3) Lotus plants grow in muddy ponds.
- (4) However, their leaves are always dry and clean.
- (5) Why?
- (6) The surface of a lotus leaf is covered with tiny, rough bumps.
- (7) When water falls on the leaf, the drops run down and gather as one.
- (8) At the same time, the water drops carry away mud and dust.
- (9) In this way, lotus leaves never stay wet or dirty.
- (10) This self-cleaning ability of lotus leaves is known as the "lotus effect."
- (11) One food company uses this effect to make yogurt lids.
- (12) The lids have a bumpy surface, so they are always clean.

Lesson 02 Biomimetics

バイオミメティクス②

- (13) Another example of biomimetics comes from cats.
- (14) Cats groom themselves with their tongues.
- (15) They swallow the fur and cough up furballs.
- (16) One electronics company uses this same mechanism for its vacuum cleaners.
- (17) Their fan blades are rough, like the tongue of a cat.
- (18) The blades press the dust together like a furball.
- (19) This makes the dust more compact.
- (20) As a result, we do not have to empty our vacuum cleaners so often.
- (21) Nature is full of ideas for a better life.
- (22) Take a look around you and find other examples of biomimetics.