



Eating, growing, moving and changing

All living things need food for energy so they can carry on growing, moving and changing.

All living things – all organisms – take in food or make their own food. Green plants, such as grass and trees, make their own food using sunlight, water, air and substances in the soil. They then use this food to keep living, to grow and to move.

Animals cannot make their own food, so they must eat food made by plants or other animals.

How food is used

Food is used as a supply of energy, the power needed to allow living things to survive. For example, even if we lie perfectly still, we still need energy just to breathe, for our hearts to beat and for blood to be pumped around our bodies.

We need more energy (and so more food) to build bigger bodies as we grow and to move about.

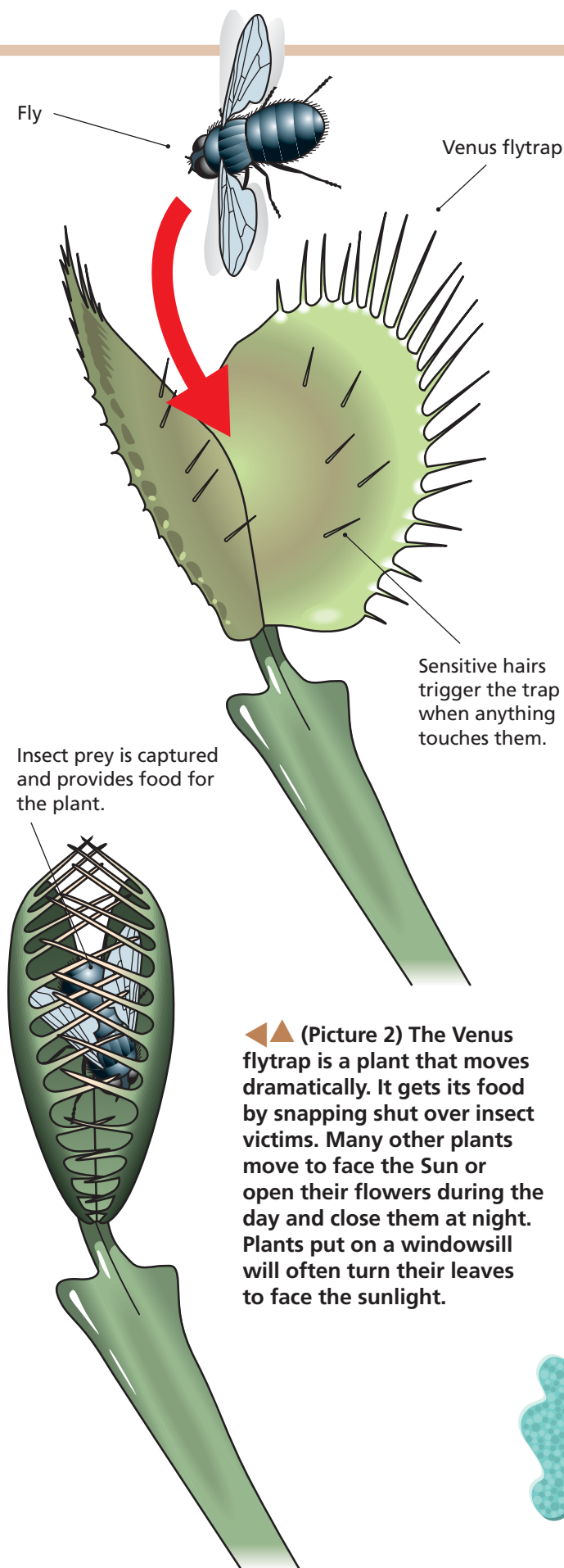
► (Picture 1) If you did not think that plants move, then you would be surprised by this sensitive plant. The fern-like leaves close as soon as they are touched.



The bodies of all living things are really chemical factories, where food is broken down, then rebuilt into things useful for life such as skin and bone, or used as energy.

How living things grow and change

No matter how long you left a chair in a room, it would not change shape or move. But living things do both of these things (Pictures 1 and 2). How do they manage it? They do it by adding or changing the tiny building blocks all living things are made up of. We call these building blocks **CELLS**.



◀▲ (Picture 2) The Venus flytrap is a plant that moves dramatically. It gets its food by snapping shut over insect victims. Many other plants move to face the Sun or open their flowers during the day and close them at night. Plants put on a windowsill will often turn their leaves to face the sunlight.

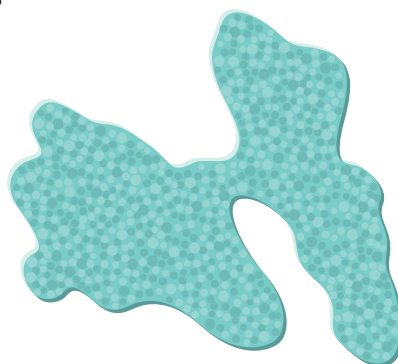
The simplest living things are made of just one cell. When it is time for this cell to grow, it splits in two and each new half grows up to be the size of its parent (Picture 3). All living things grow in this way, even humans whose bodies have billions of cells.

Having a body made of many cells gives the chance for some cells to grow in different ways. In plants, some cells grow to be the building blocks of flowers, while others build stems and roots; in animals some cells build eyes, hands, feet and so on.

Because even the most complicated living thing is made of many individual cells, it is possible for living things to change when the cells change. This is how we grow and, over time, how all living things change – or evolve – to best suit their environment.

Summary

- All living things grow and change.
- All living things need food.
- All living things are made of cells.



◀ (Picture 3) Amoebas are living things made of just one cell. They grow by splitting into two parts.