



# peak their interest

## Viruses

### Did You Know?

**Viruses have been around so long that dinosaurs battled them.** Mosquitoes, fleas, and ticks serve as carriers for some diseases. These and other arthropods pick up a disease when they bite a sick or infected host, and then carry it to one or more new hosts during their next meal of blood. Today we know that mosquitoes were already feeding on blood millions of years ago. How do we know? Many insects were caught in sticky tree sap, which hardened into amber. Scientists have been able to study these preserved specimens.

**Even germs can get and die from germs.** Bacteriophage, which means bacteria-eater in Greek, is a virus that looks like a landing pod. With its six legs, the bacteriophage, or phage for short, attaches to the surface of much larger bacteria. Most use their tails to inject viral DNA into the host cell, where it directs the production of offspring phages, sometimes creating more than a hundred in half an hour. An infected bacterium creates so many copies of the phage that the cell bursts.

**Viruses once made tulips valuable commodities.** The stripes and bright color streaks found in tulips are caused by viruses. Today these infected tulips are commonplace. But that was not the case hundreds of years ago. In Holland in the 1600s, the flowers were highly prized. People traded bulbs like jewels. Farmers offered their daughters' hands in marriage and even sold their farms for the thrill of owning one infected bulb.

**Scientists hope that viruses will help cure diseases.** Viruses are experts at injecting genetic information into a cell and harnessing that cell to create new viruses. That's why scientists are working on ways to manipulate exactly the kind of information a virus can inject into a cell. Having viruses inject other kinds of information, in the form of DNA, into cells is called gene therapy. Scientists hope that gene therapy will be able to stop cancer and AIDS, and cure genetic disorders such as cystic fibrosis.