

The color of the Martian sky is dull red.

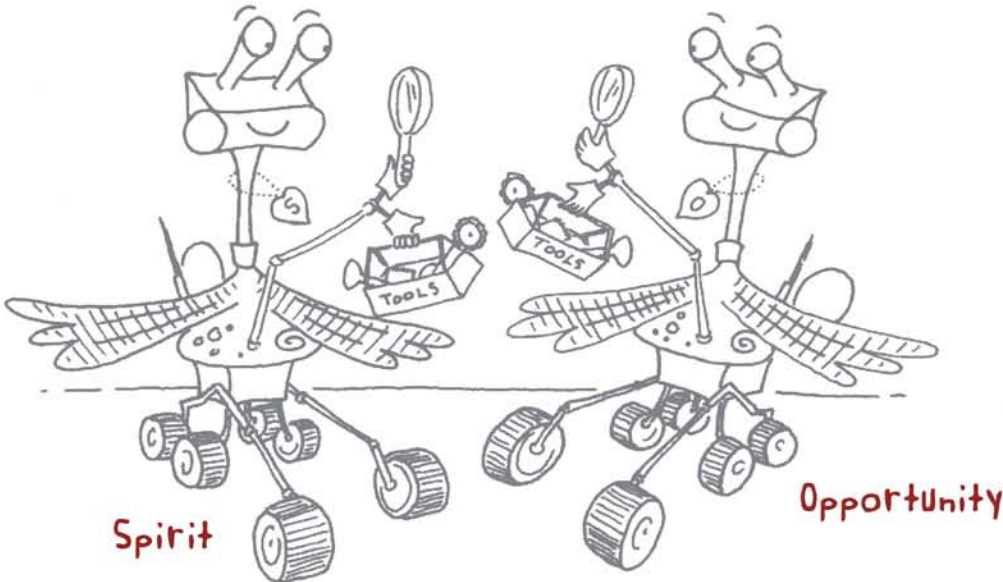
THE ROVERS HAVE PROTECTIVE THERMAL BLANKETS DESIGNED FOR THE RED PLANET'S HARSH CLIMATE.

The Rovers are 350 years old in dog years.



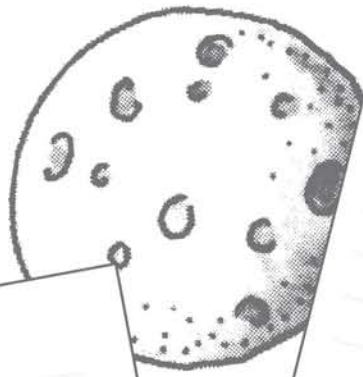
Companion to
Marsby and the Martian Detectives

Factoids



REMOTE GEOLOGISTS, NASA'S ROBOT HEROES

Factoids:



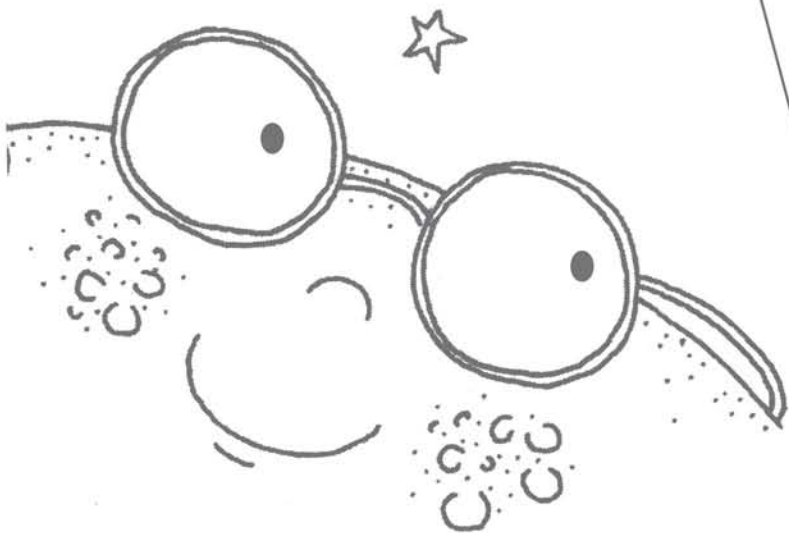
- **Re cap of the Rovers' journey.***

In the last six minutes of the Rovers' journey from Earth to Mars, ten things happened.

- (1) Entered Martian atmosphere.
- (2) Parachute opened.
- (3) Heat shield separated.
- (4) Lander descended at the end of a bridle.
- (5) Radar measured altitude and vertical velocity.
- (6) Airbags inflated.
- (7) Retro rockets fired.
- (8) Bridle was cut.
- (9) Airbags fell free.
- (10) Airbags bounced along on surface of Mars.

- It took Spirit's signal 9 1/2 minutes to reach Mission Control.

- A sol is a Martian day.



- Mars appears red because the dust covering Mars's surface is full of iron oxide which has the reddish brown color of rust.

- Dust devils are mini tornadoes that travel along the surface, such as on the surface of Earth or Mars. They can blow at 100 mph.

- ★ Dust devils have blown away the dust that covered the Rovers' solar panels so they could continue to recharge their batteries!

- The sunset at Gusev Crater is blue in a sandy salmon sky.

- ⊙ Joy Crisp wears a necklace of gray-colored beads made of specular hematite, a shiny gray mineral found on Earth...used to make jewelry for hundreds of years.

- As of May, 2006, Spirit and Opportunity have lasted nine times longer than planned despite squeaky wheels, stiff arms, and memory problems.

- Hematite takes its name from the Greek word for "blood," and is a rusty color in powdered form.

- The motors on Spirit's wheels have rotated more than 13 million times.

Please visit NASA's website, www.jpl.nasa.gov for a wealth of valuable information on the Mars Exploration Rovers.



Hematite Factoids:

1. Rust is the iron oxide that we are the most familiar with on earth. It is the reddish-brown coating found on iron objects that have been exposed to air or water on Earth.

2. Hematite, an iron oxide rich mineral, typically forms in the presence of water or occurs in a volcanic environment.

3. On Earth and on Mars, the mineral, hematite, has many different forms, indicating that it can be created in different ways.

4. Life as we know it needs water.

5. Opportunity was sent to Meridiani Planum to see if any of the hematite there was formed in iron rich water.

6. On sol 48, Opportunity found hematite that indicated Ancient water, in spherules called blueberries, embedded in outcrop rocks and scattered over some areas of the soil.

7. In the ocean, on Earth, tiny microbes living on rust (iron oxide) in the water, leave strings of magnetic beads. Finding these tiny beads on Mars is very unlikely but fun to think about.

8. Both Opportunity and Spirit have found signs of ancient water on Mars, but they have not found any signs of past life on Mars... the search goes on.

Other resources: Science Magazine. VOL 306. December 17, 2004 Breakthrough of the Year. Mars. www.sciencemag.org

* DVD video, MER landings. Courtesy of JPL.