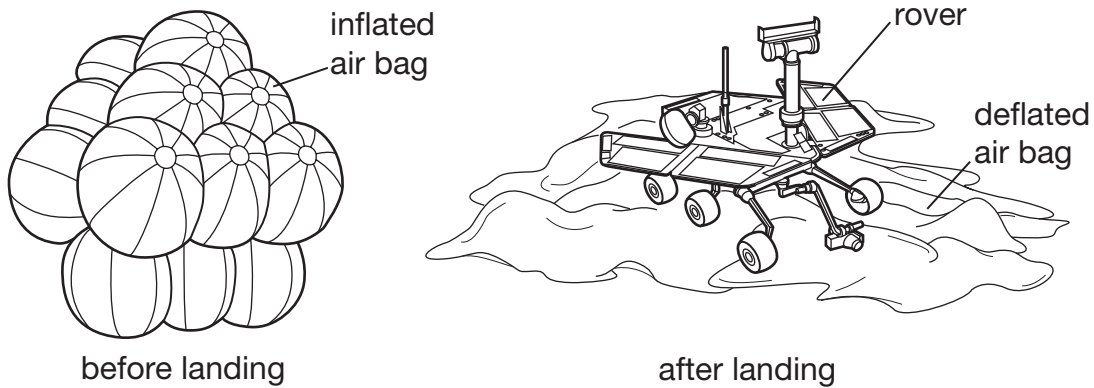


OPEN-ENDED QUESTIONS

Use the diagram below to answer question 17.

Mars Exploration Rover Landing System



17. The landing system for the Mars Exploration Rover spacecraft used a system of air bags to protect its fragile rover during landing. Engineers first used a computer simulation to test the new air bag design; then they used crash tests with various types of vehicles.

Part A: Describe one benefit of using a computer simulation to test the air bag design before conducting crash tests.

Part B: Explain how crash tests help engineers test the air bag design.
