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All About Space

Subject Area

The Natural World

Topics & Curriculum Links

galaxies and stars (Science)

solar systems, planets, and moons (Science)

quantities, measurements, sizes, temperatures (Mathematics)

astronomy; space exploration (Science; History)

machines (Technology)

materials (Science)

countries (Geography)

dates and events (History)

Vocabulary

outer space; planets; places; materials; gases; weather; machines; dates; numbers; measurements; countries; nationalities; continents

Grammar

present simple; present continuous; past simple; present perfect; past continuous; future simple; question forms; imperative; passive; adjectives; prepositions; adverbs

Teaching Ideas

See also [pages 6–7](#) for general ideas that you can adapt. Or go to www.oup.com/elt/teacher/readanddiscover

A Planet Chart

After completing Project 1, students present their planet to the rest of the class. Posters can be displayed together. Students then complete a big chart for all the planets in the solar system, using headings like these: *Name; Size; Distance from the Sun; Temperature; Made of; Orbit; Moons*. They can refer to the Reader, the posters, and other books or the Internet. You can also do a class quiz with the information collected.

A Space Hotel Advert

After completing Project 2, students present their space hotel to the rest of the class. Other students can ask the questions on page 52 of the Reader. Then they display the posters together, and students write comments about the posters. They can then vote for their favorite space hotel.

A Space Debate

Students work in two groups. Ask one group to think about the arguments for living on the Moon and the other group to think about the arguments for living on Earth. Then in turn each group presents their arguments, like this: *You can ... There is a lot of ... There isn't any ... It's easy to ...* The other group can argue back with arguments against. Give a prize for the most convincing argument.

Activities Answers

Pages 36–37 1 1 galaxy 2 solar 3 orbit 4 axis 2 1 giants 2 stars 3 helium 4 dwarf 5 axis 6 energy. Secret word: galaxy 3 1 dwarf planet 2 planet 3 star 4 solar system 5 galaxy 6 universe 4 1 billion 2 the Sun 3 rocks 4 billion 5 heat 5 1 When a place on Earth is opposite the Sun. 2 Nuclear fusion. 3 It gives them energy to grow. 4 Because they travel a shorter distance. 5 Eris, and it's 2,500 kilometers across.

Pages 38–39 1 1 Mercury 2 Venus 3 Earth 4 Mars; 1 Mars 2 Venus 3 Mercury 4 Earth 5 Venus 6 Mars 2 1 true 2 false 3 true 4 false 5 true 6 false 3 1 temperature 2 atmosphere 3 canyon 4 carbon dioxide 5 pressure 6 sulphuric acid 4 1 rocks and soil 2 sulphuric acid 3 Because it has liquid water. 4 27 days 5 Because of chemicals. 6 rivers

Pages 40–41 1 1 Mercury 2 Venus 3 Earth 4 Mars 5 Jupiter 6 Saturn 7 Uranus 8 Neptune 2 1 ring 2 cloud 3 lake 4 storm 5 ice 6 rock 3 1 liquid 2 storm 3 chemicals 4 rings 5 second 4 1 The outer planets are called the gas giants. 2 Titan is one of Saturn's moons. 3 Jupiter is the biggest planet in the solar system. 4 Saturn's rings are made of ice. 5 Neptune is the farthest planet from the Sun. 6 Uranus has 27 moons. 5 1 Gas giants are bigger and they're made of gases, not rocks. 2 Because of chemicals in the ice. 3 Because it's far from the Sun.

Pages 42–43 1 1 comet 2 asteroid 3 meteor 4 meteorite 2 1 rings 2 rocks 3 ice 4 tail 5 burn 6 crater 7 dinosaurs 3 1 C 2 T 3 C 4 C 5 T 6 C 7 T 4 1 The asteroid belt is between Earth Mars and the Sun Jupiter. 2 A lot of comets come from the asteroid Kuiper belt. 3 Comets become colder hotter when they are near the Sun. 4 We can see Halley's Comet in the sky all the time every 75 or 76 years. 5 Some meteorites hit the Moon Jupiter in 1994. 6 About 65 million years ago, there were no animals people on Earth.

Pages 44–45 1 1 temple 2 calendar 3 seeds 4 telescope 5 spacecraft 6 astronomer 2 1 prove 2 festival 3 believe 4 temple 5 explore 6 calculate 7 force 3 1 sun, believed 2 believed, important 3 gravity, proved 4 discovered, universe 4 1 true 2 true 3 true 4 false 5 false 5 1 free answers

Pages 46–47 1 1 canal 2 alien 3 bacteria 4 UFO 2 1 Earth, Mars, Titan 2 Mars, Europa 3 Mars 4 Earth, Titan 5 Earth 3 1 simple 2 imagine 3 underground 4 covers 4 1 liquid 2 Mars 3 warmer 4 hydrocarbons 5 1 Because astronomers thought that they saw lines on the surface. 2 Because it's so cold that all the water is ice. 3 Hydrocarbons and water 4 free answers

Pages 48–49 1 1957 rocket, 1961 person, 1968 orbited, 1969 Moon, 1981 space shuttle, 1998 Space Station 2 1 false 2 true 3 false 4 true 5 true 6 false 3 1 float 2 sleeping bag 3 gravity 4 exercise 5 mask 6 shower 7 containers 8 weak 4 free answers

Pages 50–51 1 1 space suit 2 Radiation 3 experiments 4 Engineers 2 1 Space planes are cheaper than rockets. 2 Robonauts go to dangerous places. 3 Earth's atmosphere protects us from radiation. 4 Maybe tourists will stay in space hotels. 5 Scientists will probably invent faster spacecraft. 3 1 This has happened: robots on Mars, space planes, space tourism; This will happen: a Moon base, very fast new spacecraft, astronauts on Mars; Maybe this will happen one day: space hotels, finding aliens, exploring other solar systems 4 1 Special space planes. 2 In about 2020. 3 Because radiation isn't a problem for them. 4 free answers