

3

Super Structures

Subject Area

The World of Science & Technology

Topics & Curriculum Links

materials and components (Science; Technology)

structures in the environment (Geography)

sizes and measurements (Mathematics)

shapes (Technology; Mathematics)

architecture (Art; Technology)

places and countries (Geography)

dates and events (History)

structures made by animals (Science)

Vocabulary

materials; structures; buildings; shapes; transportation; weather; animals; measurements; numbers; months; places; countries; continents

Grammar

present simple; past simple; question forms; imperative; 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 Structures Graph

After completing Project 1, students make a graph to show the relative heights and silhouettes of the structures that they have chosen. They can use the model on page 8 of the Reader. They can write about the graph like this: *[Name of structure] is ... meters tall / long / wide ... [Name of structure] is the tallest / longest / widest ... [Name of structure] is taller / longer / wider than [Name of structure].*

READ & TALK A Design Competition

After completing Project 2, students present their design to the rest of the class. They can talk or write about their design like this: *My structure is called ... It's a / an ... It's made of ... It has ... It's for ...* They then display all the designs together, and students write comments on each other's design. Or they can vote for their favorite design.

READ & TALK Secret Structures

Choose a super structure from the Reader, then describe it to the class without saying its name. *It's ... tall / long. It's made of ... It has ... It's a ... in ... It's for ...* Or you can ask students to guess the structure by asking questions, for example: *How tall / long is it? What's it made of? Where is it? What's it for?* Then ask students to do the same in pairs, taking turns to describe a structure from the Reader, or a structure in their country.

Activities Answers

Pages 24–25 1 1 Laerdal Tunnel 2 Seikan Tunnel 3 Laerdal Tunnel 4 Seikan Tunnel 2 1 true 2 true 3 true 4 false 5 false 3 1 under 2 concrete 3 Japan 4 Norway 4 1 metal 2 longest 3 25 kilometers 4 under 5 through 5 1 A 2 B 3 B 4 B 5 A 6 A

Pages 26–27 1 1 overground 2 longest 3 deck 4 suspension 2 1 beam bridge 2 deck 3 pillar 4 suspension bridge 5 tower 6 cable 7 deck 8 anchorage 3 1 bridge 2 water 3 beam 4 cable 5 deck 6 pillar 7 tower 8 anchorage 4 1 The pillars carry the deck. 2 The cables and towers carry the deck. 3 They move a little when it's windy. 4 The Tacoma Bridge in the USA collapsed. 5 free answer

Pages 28–29 1 1 Burj Dubai 2 Taipei 101 3 Petronas Twin Towers 4 Sears Tower 5 Shanghai World Financial Center 2 1 8mm 2 92 cm 3 900m 4 10mm 5 100cm 6 1,000m 3 1 shorter 2 taller 3 tallest 4 taller 5 shorter 4 1 It was built in Chicago. 2 It's 818 meters tall. 3 They are called the Petronas Twin Towers. 4 free answer

Pages 30–31 1 1 arch dam 2 reservoir 3 curve 4 gravity dam 5 reservoir 6 concrete 2 1 false 2 true 3 false 4 true 5 true 3 1 rain 2 Switzerland 3 heavy 4 concrete 5 curved 6 water 4 1 It's a gravity dam. 2 It's in Switzerland. 3 The curve holds back the water. 4 The weight holds back the water. 5 free answer

Pages 32–33 1 1 National Stadium 2 Terminal 3 3 National Stadium 4 National Stadium 5 Terminal 3 2 1 China, planes 2 nest, metal, pipes 3 1 color 2 Olympics 3 super 4 airport terminals 5 metal 4 1 They were in 2008. 2 It's the capital of China. 3 It's red. 4 It's made of metal. 5 free answer

Pages 34–35 1 1 millennium 2 days 3 months 4 circle 5 wind 6 shape 2 1 January 2 February 3 March 4 April 5 May 6 June 7 July 8 August 9 September 10 October 11 November 12 December 3 1 materials, shapes 2 London, dome 3 skyscraper, day 4 1 The O2 is a dome. 2 There are 12 months in a year. 3 Every floor can rotate a full circle. 4 There are 365 days in a year. 5 The rotating skyscraper uses energy from the wind.

Pages 36–37 1 1 bricks 2 concrete 3 ice 4 glass 5 mud 6 metal 7 plastic 8 wood 2 1 true 2 false 3 false 4 false 5 true 6 false 3 1 Biosphere 2; 2 Ice Hotel 3 Ice Hotel 4 Biosphere 2; 5 Biosphere 2; 6 free answer 4 1 Ice Hotel is made of ice. 2 Every year Ice Hotel is built again. 3 It is open from December to April. 4 The drinking glasses are made of ice. 5 Biosphere 2 is made of glass and metal. 6 There is a rainforest in Biosphere 2.

Pages 38–39 1 1 Halley 6; 2 Poseidon Undersea Resort 3 Halley 6; 4 Halley 6 2 Poseidon Undersea Resort: water, submarine, fish, hotel, ocean; Halley 6: cold, skis, wind, ice, research 3 1 under 2 plastic 3 on 4 moves 5 weather 4 1 It's in Fiji. 2 It's in the Antarctic. 3 You travel by submarine. 4 It can be less than -50 degrees centigrade. 5 free answer

Pages 40–41 1 1 astronaut 2 earth 3 research 4 rocket 5 shuttle 6 space 2 1 350; 2 16; 3 27,700; 4 8; 5 1998; 3 1 astronaut 2 ISS 3 Earth 4 1 It's about 350 kilometers above Earth. 2 It's a research station. 3 It went into space in 1998. 4 No astronauts went with it. 5 They do spacewalks outside the ISS. 6 Yes, you can.

Pages 42–43 1 1 false 2 true 3 true 4 false 5 true 6 free answer 2 1 Animals can build super structures too. 2 Termite mounds are termite skyscrapers. 3 Wombats dig about 2 meters per hour. 4 Termites build their homes with mud. 5 Beaver dams can be a kilometer long. 3 1 super structures 2 skyscrapers 3 curve 4 underground 5 bridge 6 concrete 7 tunnels 8 road 9 metal 10 dam 11 over 12 long 13 glass