



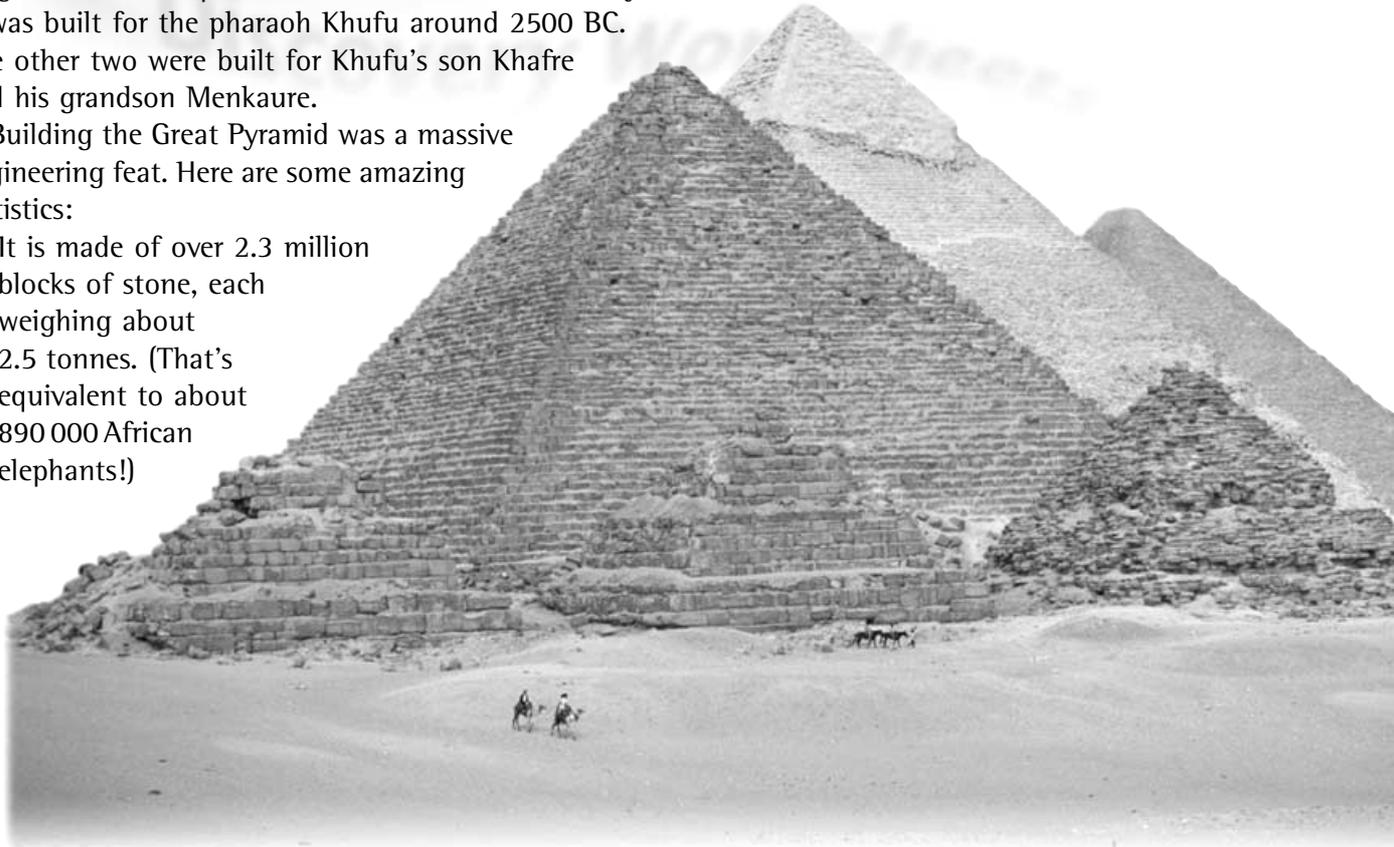
# Discovery Worksheets

## Build a pyramid

The three large pyramids at Giza in Egypt are the last surviving 'wonder' of the Seven Ancient Wonders of the World. The biggest and most spectacular of these is the Great Pyramid. It was built for the pharaoh Khufu around 2500 BC. The other two were built for Khufu's son Khafre and his grandson Menkaure.

Building the Great Pyramid was a massive engineering feat. Here are some amazing statistics:

- It is made of over 2.3 million blocks of stone, each weighing about 2.5 tonnes. (That's equivalent to about 890 000 African elephants!)



- When built, it covered an area of close to 53 000 square metres. (That's about two and a half times the area of an AFL football field.)
- When built, it was 146.5 metres tall. It was the tallest structure in the world for over 4000 years!
- The four sides of the pyramid are not more than 20 centimetres different in length, and the blocks fit together so neatly that a knife blade can barely be pushed between most of them.
- Each side of the pyramid makes an angle of  $51.5^\circ$  with the base. As well, its four sides almost precisely align with the directions of true north, west, east and south.

Would you like to construct a scale model of the Great Pyramid? The template provided on page 2 of this worksheet will make a 1 : 3000 model of the pyramid if you make it to this size. You may prefer to construct an enlarged version (at 150 per cent) of this template.



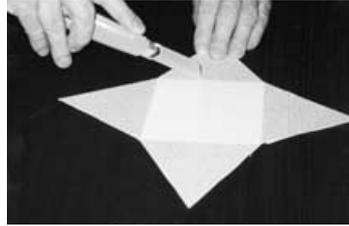
*Atlas of Discovery*, pp. 30–31;  
large sheet of 1 mm thick cardboard;  
coloured pencils or pens; scissors and safety knife;  
ruler; quick-drying glue;  
extra card and sand (optional)



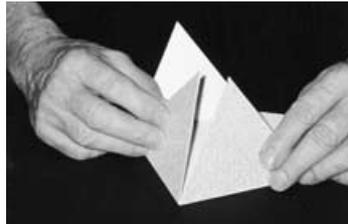
**Instructions**

1. Cut out a copy of the template, with some white surroundings still left around the outer edge. Paste it onto 1 mm thick cardboard. When it is **completely** dry, cut out the template. If you use a safety knife, use a ruler. **Be extremely careful not to cut your fingers.** You may wish to colour it.

2. Use a safety knife to gently score along the dotted lines to help you bend the cardboard. Be careful not to cut right through it!



3. Bend the four triangular sections up to meet at a point at the top. If you cut your cardboard carefully, the sides should exactly align.



4. Use a quick-drying clear glue (e.g. craft glue, Tarzan's Grip®) to join the sides together where they meet. Let your pyramid dry. If you wish, you could sit it on a sheet of cardboard covered lightly with glue and sprinkled with sand.

