

Medals: Going For Gold!

Some of the most exciting and historic events at the London 2012 Olympic Games and Paralympic Games will be the medal ceremonies - when winning athletes from around the world receive their gold, silver or bronze medals. The medal ceremonies recognise their effort and dedication to become the best in the world.



Kieren Perkins and Daniel Kowalski win gold and silver for Australia in the 1500 metre freestyle at the 1996 Atlanta Olympics Allsport

What are the medals made of?

The gold and silver medals for the London 2012 Olympics and the Paralympic Games are in fact both made of silver (92.5%). The gold medals are then coated with gold and approximately 10kg of gold will be required for this.

The **gold** medals will be made from 92.5% silver, 1.34% gold and about 6% copper.

The **silver** medals will be 92.5% silver and 7.5% copper.

The **bronze** medals will be made of 97% **copper**, 2.5% **zinc** and 0.5% **tin**.





Gold



Silver



Copper

Each Olympic medal will weigh between 375 and 400 grams. Each medal is 85mm in diameter and is 7mm thick.

The Gold medal is mainly silver but it is coated with 6 grams of 24 carat gold!

Where have the metals come from?

Rio Tinto <http://www.london2012.com/news/2011/07/rio-tinto-hands-over-medal-metal-to-london-2012.php> is providing the majority of the ore required for the medals from mines in America (Kennecott Utah Copper Mine) and Mongolia (Oyu Tolgoi). Tin is being sourced from Cornwall, England and the zinc from Australia! Over 8 tonnes of gold, copper, silver and zinc will be required to make the 4,700 medals!

<http://www.riotinto.com/fromminetomedal/>

You can watch a video on how Rio Tinto's mine in North Parkes in New South Wales contributed to the making of the Olympic medals.

For more information on Gold, Copper or Silver visit the Rock Files, Fact Sheets or Minerals Downunder websites.

http://www.australianminesatlas.gov.au/education/down_under/index.html

http://www.australianminesatlas.gov.au/education/rock_files/index.html

http://www.australianminesatlas.gov.au/education/fact_sheets/index.html



Native Silver

Did you Know? The bronze medals made for the Sydney 2000 Olympic Games were made from old 1 cent and 2 cent coins that were no longer being used. Great recycling of metals!



Native Copper



How Many Medals?

A total of 4,700 medals will be produced for both Olympic and Paralympic Games.

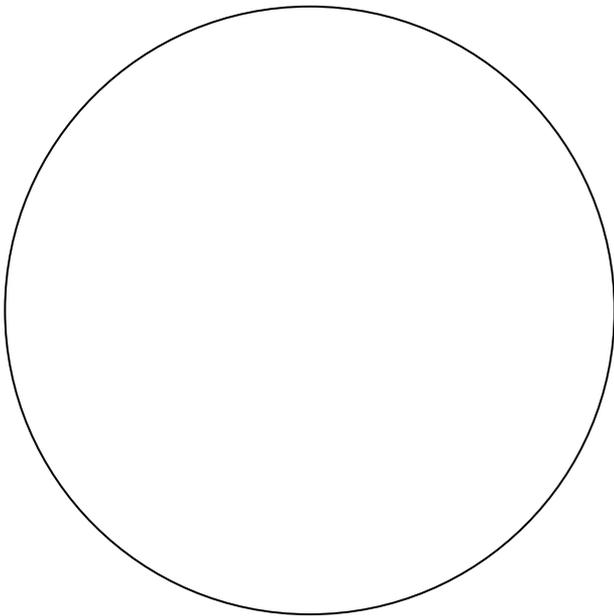
Design Features

All Olympic medals reflect the Greek character of the Games. Greece is not only home to the ancient Olympics but was the site of the first modern Olympics in 1896. The obverse side or 'front' of the medal features Nike, the Greek Goddess of Victory as she flies into the stadium bringing victory to the best athlete. The image shows the Panathenic stadium in Athens, where the Games were first renewed in 1896. On the obverse side, the athlete's discipline will also be engraved and the Olympic rings will feature. These traditional symbols have featured on Olympic medals since 1928.

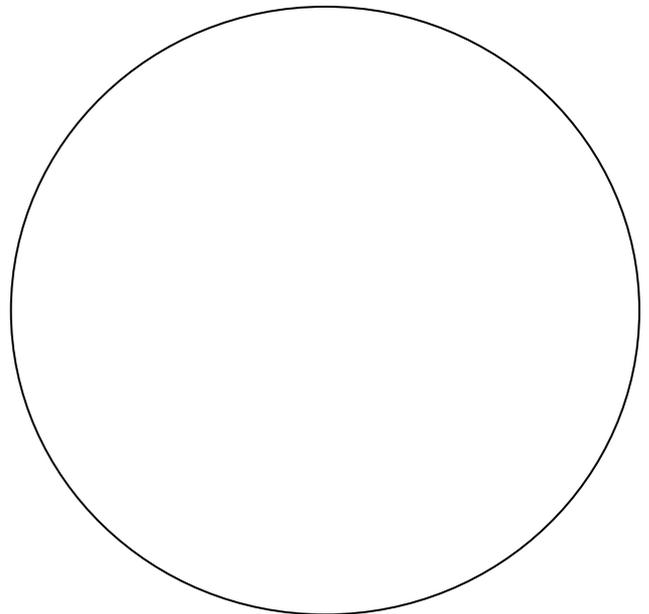
The London 2012 winning design was created by British artist David Watkins. The reverse side of the medal shows this design which features five symbolic elements: a curved Amphitheatre as the background, the River Thames, the London 2012 emblem, a square motif and a grid of lines across the medal representing the athletes striving for success.

Design Your Own Medal

Knowing what you do now about the design requirements for Olympic medals and using your own creativity, sketch your design for both sides of the Olympic medal below.



Obverse Side



Reverse Side



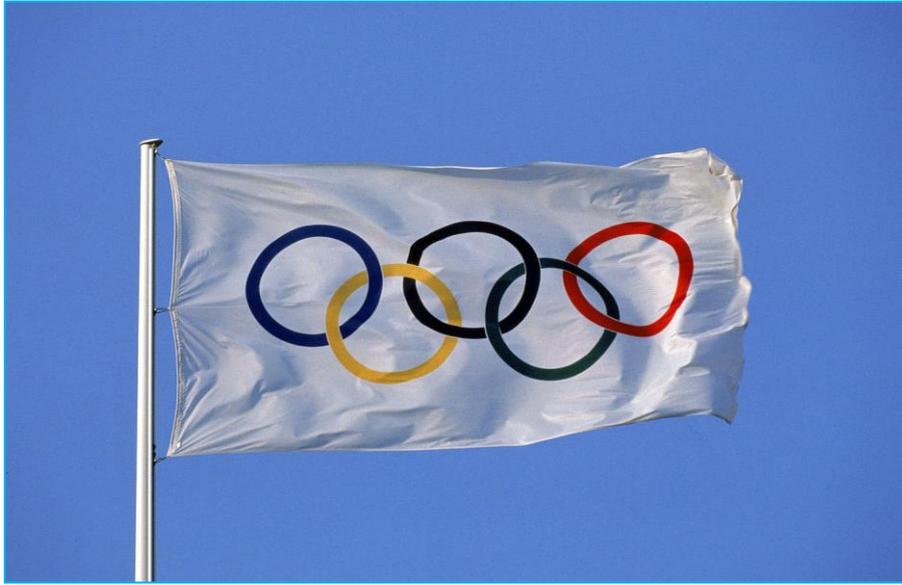
Medal Presentation

There will be a total of 805 victory ceremonies for the 2012 Olympic and Paralympics Games.

The International Organising Committee (IOC) Charter makes the rules for awarding medals. The Charter stipulates that an IOC member presents the medals and that a member of the International Federation of that sport presents a bunch of flowers.

Try to find out the flower emblems which represent England, Northern Ireland, Scotland and Wales. Find a photograph of the flowers presented to the winning athletes and see if you can see these flowers.

So when you see a medal being presented to an athlete during the 2012 Olympic Games and Paralympic Games, you now know a little more about what went into making these amazing medals!



The Olympic Rings are five interlocking rings that stand for the five original continents, (Africa, America, Asia, Australia, and Europe) and the athletes from around the world.

The colours of the rings are blue, yellow, black, green, and red respectively. They were chosen because at least one of these colours is found on the flag of every nation.



Student Activity - Medals: Going for Gold

- Name three countries which are providing the metals for the 2012 Olympic medals?

- On a map of Australia mark the location of the North Parkes mine.

- Calculate the value of a London Olympic gold medal at today's price. (Remember 6grams of 24 carat gold is used. Hint: 1 ounce of gold is approximately 30 grams)

- How much silver is there in a gold medal?

- What metals are found in the bronze medal?

- The Olympic rings feature on the medals. What are the colours of the Olympic rings and why were they chosen?

- Why were 5 rings chosen?

- Approximately how many medals altogether will be awarded at the 2012 Olympics and Paralympics?



Draw a flow chart showing all of the stages in the production of a gold medal, from the initial exploration for the minerals through to the final presentation ceremony.

