

### SHQ: How are angles used in sports?

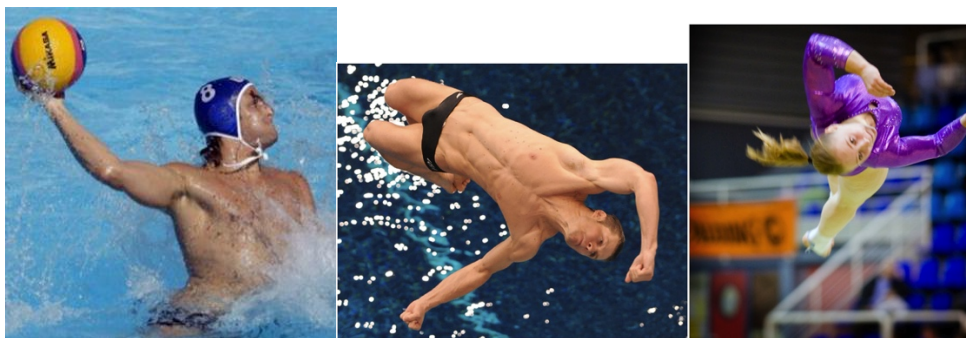
This task is an investigation which looks at how sports men and women use angles in sport. You will need to use this link to access the resources:

<https://nrich.maths.org/8191>

On the link, you will see photos of some Olympic sports that involve turns and angles in different ways. Some examples of the photos are shown below (here you will see pictures of water polo, diving and gymnastics). In each picture, you will see that the athlete will need to perform a 'turn' (for example of their arm to throw the ball, or their body in a gymnastics routine).

On the web page, click on a particular photo to explore the picture in more detail, discovering what angles you can see. Can you see any angles in the way in which the athlete holds his or her body or their arms or legs? How do they hold the equipment they use? Do the angles they use affect their score?

For example, if you look at the photo of the diver, this is a dive which took place during the Olympics in which some parts of your body have to be in a particular angle, example- your feet need to be absolutely pointed  $180^\circ$ . Also your hands need to be in a fist which is  $360^\circ$ . Some divers fall into the water after turning  $360^\circ$ , most divers fall in with their bodies as a stream line which is  $180^\circ$ .



Here is a link to the [Olympic website](#). There are lots of resources here including photos, images and video clips that show turns and angles in different ways. Explore your favourite Olympic event for angles and turns.

You could print one of your favourite pictures and add notes explaining the importance of angles in the sport, or you could produce a table listing different sports and the angles that the athletes use.