

The Science of Sport

World Cup Science Investigations



World Cup Science Investigations

I wonder...?

Is it easier to kick a rugby ball or a football?

Have you ever wondered why footballs are round?

What makes them the best shape for a game of footie?

Design an investigation to test which shaped ball is best for kicking.



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I wonder...?

Is it better to shoot the ball with your left foot?

Bale, Messi, Maradona... Some of the world's most famous footballers have been left-footed.

Design an investigation to test whether most goals are scored with a left foot.



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I wonder...?

Does a fully inflated football travel further than a partially deflated ball?

Is a fully inflated ball too bouncy?

How much air should you pump into a ball before a game?

Design an investigation to test whether it is best to use a fully inflated ball in football.



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I wonder...?

Are taller people better goalkeepers?

The England and West Ham goalkeeper, Joe Hart, stands at 1m 96cm tall.

Does his height make him a better goalkeeper?

Design an investigation to test whether tall people make better goalies.



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I wonder...?

Is a bigger ball better than a smaller ball for kicking?

The football used in The World Cup will measure about 22cm in diameter.

Is this the best size for a football?

Design an investigation to test which size ball is best for kicking.



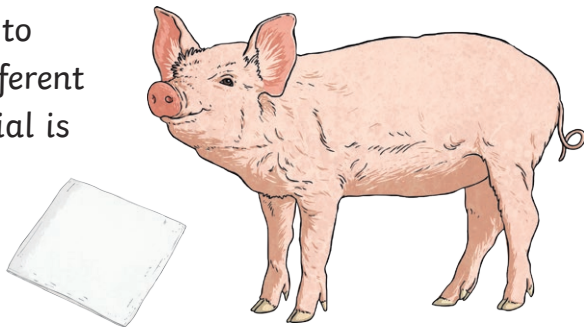
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I wonder...?

Which material makes a good football?

The first World Cup ball was made from a pig's bladder. Today it is made from high-tech synthetic material.

Design an investigation to test balls made from different material – which material is best?



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Become a Sport Scientist

Why not have a go at inventing your own football investigation?

What will you investigate?

How will you conduct your experiment?

How will you collect and present your results?

