# PROFESSIONAL FOOTBALLS

## MATCH THE BALL TO THE DESCRIPTION

**A**

This ball used blue, black and white rings in its design to help players. It was made from 2mm Polyethylene. When it was used it was deemed to be the most accurate ball ever made.

**B**

The rainbow design of this ball caught many eyes when on the pitch. It was made up of 12 main panels with black pentagons.

**C**

This ball has grooves cut in its surface which allows air to flow across it more efficiently. This means that it flies 30% truer. During its design phase it had 1700 hours of testing.

**D**

This ball uses luminous yellow patterns to help with visibility. It was the first ball to have fuse welded together patches. This ball had two colour schemes. One for winter and one for summer.

**E**

This ball used hand sewn seems which gave the ball better aerodynamic qualities. The red white and yellow colour scheme was designed to help players see the speed of the spin and direction of the ball.

My favourite design is number: ..... This is because: .....

.....

.....

# COMPARE THE PROPERTIES

## OF A FOOTBALL WITH OTHER OBJECTS

You are going to test and compare three different balls: a balloon, a medicine ball and a football, to see which is the best for football.

DURABILITY:
In this test you are going to test the durability of the balls.
Can the ball withstand a heavy item (books or a football boot with studs) pushing down on it without breaking?

METHOD:
1. Place the ball on a piece of carpet or padded surface.
2. Hold the heavy item in two hands and push down on the ball.
3. Record whether the ball is durable enough to not burst.
4. Test with different balls.

EXTENSION:
How else could you test the durability of the ball?

WEIGHT:
In this test you are going to test the weight of the balls.
Can the ball be kicked easily?
Can the ball be kicked in a straight line?

METHOD: (Your teacher will tell you whether to do this inside or outside)
1. Place football on the ground.
2. Another member of your group should be opposite you to stop the ball.
3. Try kicking the ball gently across the ground.
4. Record whether the ball can be moved.
5. If the ball can be moved, proceed to the next step.
6. Kick the ball and see if it can travel in a very straight line along the ground to the other member of your group.
7. Record your results.

EXTENSION:
What other tests could you try for the weight? i.e: heading, goal scoring, throw-ins.

PREDICTION:
I think the..... will be the least durable.
I think the..... will be the most difficult to move with a kick.
I think the..... will be the most difficult to kick in a straight line.
I think that the..... will be the best ball because .....
I think that the..... will be the worst ball because .....

## RESULTS

| | BALL TYPE: | BALLOON | MEDICINE BALL | FOOTBALL |
|---|---|---|---|---|
| PROPERTY: | | | | |
| DURABILITY: Did it burst? | | | | |
| DURABILITY: Your test. ..... ..... | | | | |
| WEIGHT: Can it be kicked and moved easily? | | | | |
| WEIGHT: Can the ball be kicked in a straight line? | | | | |
| WEIGHT: Your test. ..... ..... | | | | |

FINDINGS:

Complete the following sentences based on your investigation.

The worst ball in the durability test was the ..... because, .....
.....

The worst ball in the moving easily test was the ..... because, .....
.....

The worst ball in the straight line weight test was the ..... because, .....
.....

The best ball in the tests was the ..... because, .....
.....

ANSWER THE FOLLOWING QUESTIONS:

To extend the investigation what other balls would you test? .....
.....
.....

To extend the investigation, what other properties of the ball could you test? .....
.....
.....
.....
.....

ANSWERS

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