Name: _____ Date: _____

The Shot That Bent in Munich

Reading level 8 (4th grade) · 785 words

How does a kicked ball bend in the air? Soccer players call a bending shot a curl. On an evening in July 2024, in a stadium in Munich, Germany, one curl ended in the net. The player who kicked it was Lamine Yamal of Spain, who was 16 that summer. This book follows that one shot, and the air that carried it.

The game was a semi-final at the Euro. The Euro is a tournament for national teams from across Europe. In 2024 it was held in Germany. Twenty-four teams played 51 games in about a month. By this evening only four teams were left. Spain and France were two of them. The winner would play in the final.

France scored first. Spain needed an answer. About twenty minutes into the game, Yamal was outside France's penalty area. That is the big box in front of the goal. He plays on the right wing, along the side of the field. He had the ball at his feet. The goal was a long way off.

He kicked with his left foot. The ball did not fly straight at the goal. It bent. It curled through the air, hit the post and went in off it. One report said he took the shot from 25 yards, which is 75 feet. The score was tied. A few minutes later Spain scored again and won, 2 to 1.

Why did the ball bend? The answer is spin. The ball turns as it flies, a little like a spinning top. Nobody can see the air, but it pushes on the ball all the way to the goal. The spin decides which way that push goes. That is the secret of a curl.

As a ball turns, one side moves with the oncoming air. The other side moves against it. A physicist at Northeastern University explained that this speeds the air up on one side and slows it down on the other. The faster air has lower pressure.

The ball is pushed toward the side with lower pressure. It is a push to the side, not forward. So the ball bends as it travels. This force has a name, the Magnus effect. It is named for Heinrich Gustav Magnus, a German scientist who showed it in the 1850s.

The Magnus effect is not only for soccer. The same push makes a cricket ball swerve. It bends table tennis balls and golf balls too. A ball that spins one way curves one way. A ball that spins the other way curves the other way. The air does the rest.

The shot was also fast. One report from Spain's soccer federation said the ball flew at 102 kilometers an hour. That is about 63 miles an hour, close to the speed of a car on a highway. The report did not say how that speed was timed.

The goal set a record. Yamal was the youngest player ever to score at a Euro. The old record was held by a player who was 18. UEFA, the group that runs the Euro, lists it. The goal came on July 9, 2024. The record stood in November 2026.

It was not his only record at that Euro. In Spain's first game, against Croatia, he became the youngest player ever to play at a Euro. UEFA lists that one too. It happened on June 15, 2024, in a 3 to 0 win. He played in all seven of Spain's games. He started six of them.

Yamal did more than score. At that Euro he had four assists. An assist is the final touch from a teammate that leads to a goal. It is a pass that sets up someone else. A player with a good assist helps the team as much as a player who shoots.

After the tournament, UEFA named him Young Player of the Tournament. UEFA's coaching experts, called technical observers, also picked the ten best goals. They put his curl against France in first place. Spain went on to win the Euro, its fourth title.

Yamal learned the game at the academy of FC Barcelona, called La Masia. In April 2023 he played his first game for the club's first team in La Liga, Spain's top league. By the summer of 2024 he was in Munich, taking the shot that UEFA would name the best goal of the Euro.

The next Euro is set for June and July 2028 in England, Scotland, Wales and the Republic of Ireland. The scoring record stands until a younger player scores at a Euro. Until then, the curl from Munich is the mark to beat. The next time you see a ball bend, look for its spin.

Questions

1. What made the ball bend in the air?

A. Spin from the kick
B. A strong wind in the stadium
C. A bump on the grass

2. Why is the speed of the shot only "reported"?

A. The shot was too slow to time
B. The ball was never found
C. The report did not say how it was measured

3. In the sentence "The goal set a record," what does record mean?

A. A song on a disk
B. A best mark that has been kept
C. A note to remember

4. What is an assist?

A. A shot that hits the post
B. A penalty kick
C. A final touch that leads to a goal

5. Who picked the ten best goals of the Euro?

A. UEFA's technical observers
B. The players

C. The referees

Words to know

curl: a bending shot
spin: turning around
assist: setup pass
record: best mark
observers: expert watchers

Answer key: The Shot That Bent in Munich

1. A. Spin from the kick
2. C. The report did not say how it was measured
3. B. A best mark that has been kept
4. C. A final touch that leads to a goal
5. A. UEFA's technical observers