

# Opening the Windows of Curiosity

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This Viking skate had a skin boot attached to a flat piece of bone.

Some early ice skates were made from cattle or deer leg bones around 3000 B.C. These rudimentary skates were attached to feet with leather straps, and a long pole was used to push forward across the ice. The bone was not sharpened to a blade.

## WORLD OF WONDER

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# ICE SKATING

Ice skating is most popular in Northern countries. Figure skating and speed skating are competitively broken down into different disciplines and distances. Ice hockey is a team sport focused on spontaneous, fast-paced game play, requiring constant reaction and maneuvering.

### Figure skates

Figure skates are typically made of leather to provide support.



The blade is 0.16 inch (4 mm) thick, slightly longer than the boot and coated with chrome. The bottom of the blade has a slight curvature called the **rocker**.

Figure skating involves the performance of various jumps, spins and dance movements.

Early figure skating focused on the design or marks a skater etched into the ice. These **figures** are how figure skating got its name.

Some skaters have been known to reach 16 mph (25 kph) when skating into a quadruple jump.

### Hockey skates



The blade is about the same length as the boot. A typical blade has a uniform thickness of approximately 0.12 inch (2.9 mm). It is flat in the middle and curved on the ends.

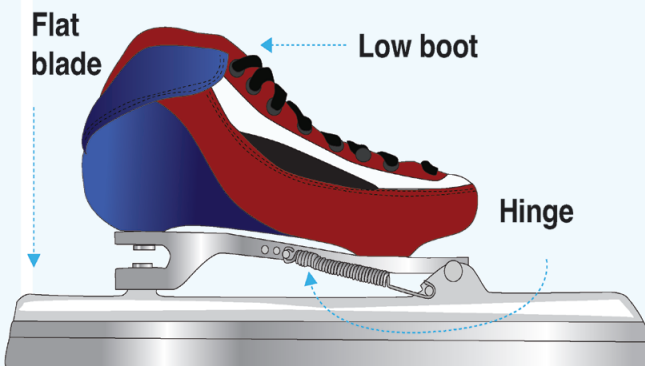
The first recorded indoor ice hockey game took place in 1875 in Montreal.

Hockey skates have stiff, protective boots. The blades sport a short, curved profile for speed and agility.

NHL hockey players can reach speeds over 20 mph (32 kph).

### Speed skates

Speed skate boots are commonly made of knit nylon and molded plastic. Blades are generally made of tempered steel coated with a high-quality chrome.



The blade is considerably longer than the boot and is about 0.06 inch (1.4 mm) thick.

Speed skating is the fastest human-powered sport, with a record speed of over 64 mph (103 kmh), achieved by speed skater Kjeld Nuis in 2022.

Types of speed skating are long-track speed skating, short-track speed skating, and marathon speed skating.

Skaters wear special aerodynamic suits and race on a 400 m oval.

### Did you know?

The first skating club was the Edinburgh Skating Club, established in 1683. The first known skating textbook was “A Treatise on Skating” by Robert Jones, published in 1772. The first known skater to perform to music was Jackson Haines. The first skating movie was 1917’s “The Frozen Warning.”

Skating was first included in the Olympics at the 1908 games in London. Ice dancing become an Olympic sport in 1976.

The first covered rink was built in Quebec City in 1852. In 1879, New York City got the USA’s first artificially frozen rink in Madison Square Garden.

American Frank J. Zamboni invented the original Zamboni ice resurfer in 1949.

A skater can experience more than four times the force of gravity when doing jumps or spins.

The ideal temperature for a figure skating rink is between 22 and 26 degrees Fahrenheit (between -5.5 and -3.5 C), slightly warmer than an ice hockey rink.

Hockey skates are also used in a similar sport known as **ringette**.

Skates should be sharpened after every 15 to 20 hours of use.

### Looking back

The first skates served as transportation.

The earliest skates known were made of bone and date from 10000 B.C.

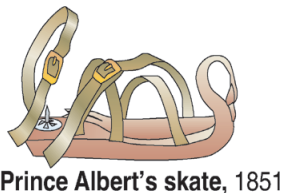
Metal blades date back to the Iron Age in 200 B.C.

Ice skating was also practiced in China during the Song dynasty between 960 and 1279.

The Dutch began using double-edged iron blades in the early 16th century.

In Europe, ice skating became a popular winter pastime in the 17th and 18th centuries.

In the late 19th century, Victorian aristocrats were avid ice skaters.



Prince Albert's skate, 1851



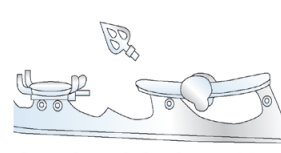
Queen Victoria's skate, 1854



American skate, 1860



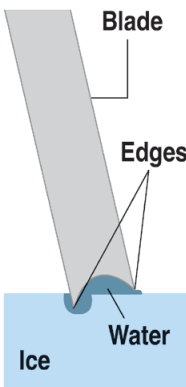
English recreational strap-on skate, 1875



America club skate, 1875

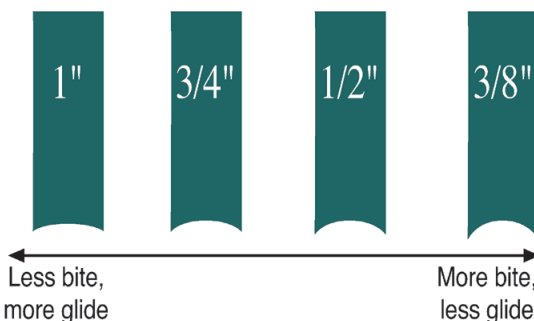
### How ice skates work

When an ice skate’s blade glides over the ice, it creates enough pressure and friction to generate heat — enough heat to melt the ice. This results in a thin layer of water that acts as a lubricant so that the skate slides easily over the ice. When temperatures are too cold, skating is difficult because the generated heat can’t melt enough ice to create the film of water.



#### Radius of hollow for ice skate sharpening

Ice skate blades have a concave bottom, called the **hollow** and measured in inches. This is not the actual depth of the hollow; it is the radius of the circle that would be created if the curve of the hollow were extended outward. A deeper hollow provides more grip for quick turns, while a shallower hollow provides more glide.



SOURCES: World Book Encyclopedia, World Book Inc.; <https://en.wikipedia.org>; <https://www.britannica.com>; <https://iceskatingguru.com/ice-skating-facts>; <https://www.hagenhistory.org>; <https://www.usspeedskating.org>; [iceskatingguru.com](https://iceskatingguru.com)

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