FLIPPING SKIPPING STONES

Hard-packed sand puts a new spin on the skipping stone.

THE SETUP

Almost everyone has skipped stones across water. The best stones for throwing are oval flat ones about two or three inches long. The best throwing motion is side arm, snapping the wrist just before the release. The idea is to put a spin on the stone as it flies off roughly parallel to the water. In a good throw, the stone skips or hops repeatedly along the surface of the water. The world record is twenty-four hops. But records, of course, can be broken. Go for it! If the water is rough when you’re at the beach, try skipping stones on the sand. Near the water’s edge, the sand is wet and hard packed. This is the perfect surface for the land version of this sport. Throw a stone there exactly as you would on water. You’ll notice that stones skip differently on sand. On water, the first hop is the longest; the others get progressively shorter. On sand, the first hop is short, followed by a much longer hop similar to the first hop on the water. Additional hops alternate between short and long. The evidence of this unusual pattern is marked in the sand.

INSIDER INFORMATION

Friction causes the stone to flip over when it hits the sand, so the short hop is not a skip, it’s a flip. Friction is a force between two surfaces moving against each other. It slows down motion. There’s not as much friction on water so the stone doesn’t flip. Instead, the back edge builds a wave in front of it, which gives added lift to its flight. As a result, you’ll get a lot more skips on water.