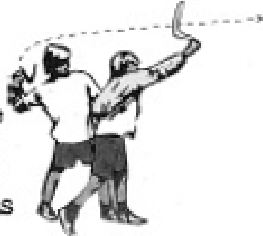


The Grip

The curved, or decorated side of the boomerang should always be held towards your body and the flat, unpainted side should always be facing away from you. The easiest way to grip the boomerang is to make a closed fist and slide the boomerang between your thumb and first finger. Make sure to cock the boomerang back for maximum spin. The "elbow" of the boomerang can be facing either forward or backward as seen in the image to the left. Practice is the best way to find the grip perfect for you.

The Throw

Always throw your boomerang in the traditional over arm style unless the instructions with your specific boomerang say otherwise. Aim the boomerang at or just above the horizon. Release the boomerang at the peak height of your throw. When thrown correctly, the boomerang will generally fly in a circle and reach the apex of its flight at the point furthest away from you. As the boomerang returns it will begin to slow down and hover towards the ground.



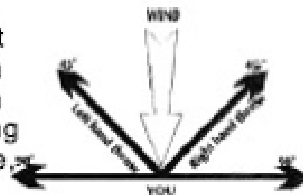
Launch Angle



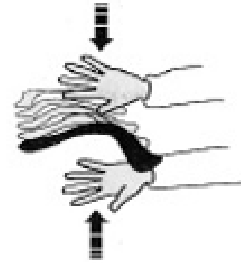
The Boomerang should be nearly vertical when releasing. Increasing the tilt angle makes it fly higher and land further back. Holding the boomerang more vertically will make it fly lower to the ground and land more forward. Never hold the boomerang horizontally flat like a frisbee. This will cause the boomerang to fly in dangerous swooping and diving flights.

Adjusting for the Wind

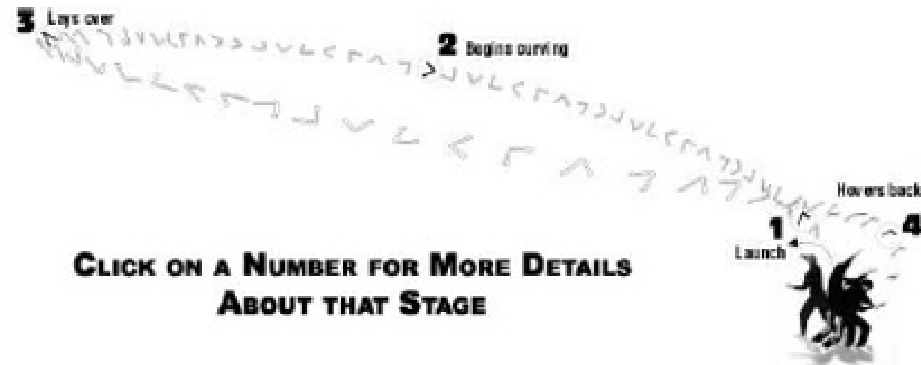
Throw to the right of the wind at an angle about 45°. Left handed throwers should throw to the left of the wind at a 45° angle. Aiming at a 45° angle will utilize the breeze in your favor to help bring the boomerang back. By standing in the same spot and aiming for an object in the distance you can adjust the throw angle to the wind.



The Catch



Catch the boomerang using both of your hands in a clapping motion as shown in the diagram to the left. Only attempt to catch the boomerang while it is slowly hovering towards you and is below shoulder height. Aim for the center section of the boomerang as you catch it, and try to avoid the faster moving wing tips. NEVER try to catch a boomerang that is diving or moving fast.



CLICK ON A NUMBER FOR MORE DETAILS ABOUT THAT STAGE

What Makes A Boomerang Return?

Despite the simple appearance of the boomerang, the characteristic returning flight is guided by a complex combination of physics and aerodynamics. The returning boomerang is most commonly two wings jointed at angle between 80° and 120°, however, some newer boomerangs have more than two wings. The combination of spin and forward motion create an uneven lift over the wings. As the air flow passes over one wing faster than the other, lift is created. The natural spin of the boomerang twists at right angles, which results in the boomerang's curving flight. Since the center of lift is forward of the center of gravity another tipping force is created, making the boomerang lie down during its flight. The combination of these spinning forces is called gyroscopic precession.