

**THINKING CRITICALLY****● What About Whirlpools?**

A whirlpool is a mass of water that usually spins rapidly and with great force. Whirlpools can form as a result of several conditions. When two opposing ocean currents meet, the result is often a whirlpool. Rock formations in the ocean and tides can interfere with the path of an ocean current. If the current is diverted in a circular path, a whirlpool develops. The action of wind on the ocean also provides energy for a whirlpool.

There are several well-known whirlpools in the world. The Maelstrom, a whirlpool off the coast of Norway, occurs as a result of rock formations and tides that oppose a current that flows in the Arctic Ocean. The Maelstrom has always been a hazard for ships.

Another famous example, the Charybdis, is located between Sicily and Italy. This whirlpool is caused by winds that act against the tidal currents that flow through the narrow passageway between Sicily and Italy.

**Your Turn to Think**

1. Filmmakers show ships being destroyed in whirlpools. In a typical scene, the ship is hurled into the center of the whirlpool and disappears in the swirling waters. Given the conditions under which whirlpools form, what is the most likely way in which ships can be destroyed in whirlpools?
2. People often make a model of a whirlpool by filling a sink with water and then releasing the water by opening the drain. Is this a good model of the forces at work in a whirlpool? Why or why not?
3. Whirlpools can also form in rivers. One of the best examples is Whirlpool Rapids in the Niagara River. Several different factors contribute to the formation of whirlpools in rivers. Using any resources available to you, write a short summary explaining how this type of whirlpool forms.