

Name _____

Mechanics of a Wedge

Short Answer Key

1. When using a wedge, a smaller force is exerted over a greater distance, but this force becomes concentrated at the narrow end of the wedge, making it capable of splitting, cutting, or securing objects.
2. The wedge-shaped tip of a nail concentrates the force at the pointed end when driven into wood, creating a secure hold by effectively displacing and compressing the wood fibers.
3. Chisels use wedge-shaped tips for carving and shaping various materials, such as wood, stone, or metal, with precision.
4. A doorstop is shaped like a wedge, and the narrow end slides under the door, concentrating the force at the wide end to hold the door open.
5. Wedges might be used in construction to temporarily secure objects in place, such as scaffolding, beams, or building components.

