

651-0500 Meteorite Specimen



Introduction: A meteorite is a rock from space that survives collision with the Earth. Meteors hit our atmosphere all the time, but many are burned up by friction with the air. This is because meteors strike the earth at higher than orbital speeds, i.e. more than 16,000mph. Any fragment that is large enough to make it to the ground is called a meteorite. Smaller ones disintegrate in the atmosphere and are called shooting stars.

Your specimen is a fragment from the NWA 869 strike. This stands for North West Africa, find number 869. This event occurred about 100,000 years ago, and showered a large swath of Algeria with fragments. It is one of the most productive meteorite finds ever discovered. The meteor which crashed here was a chondrite, which is composed mostly of stone instead of metal. It is a very common type of meteorite. The name chondrite comes from the word chondrules, which are small spherical inclusions found in the matrix. They were likely formed by material melting and then quickly refreezing, probably from collision with another meteorite.

Almost all meteors have some iron and nickel in them, and chondrites are no exception. These materials are magnetic. If you use a strong magnet, you will find that your specimen is magnetic as well, due to the presence of these metals. You will also notice that the surface is smooth and shiny, which was caused by ablation. Ablation is when the outer layers of an object are vaporized away, and occurs when the object is rapidly heated to great temperature. In the case of meteorites, this occurs due to friction with the atmosphere.

Your specimen is approximately 4.5 billion years old, making it about as old as planet Earth. It has waited eons and traveled across the gulf of space to make it to you.

Warranty and Parts:

We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.