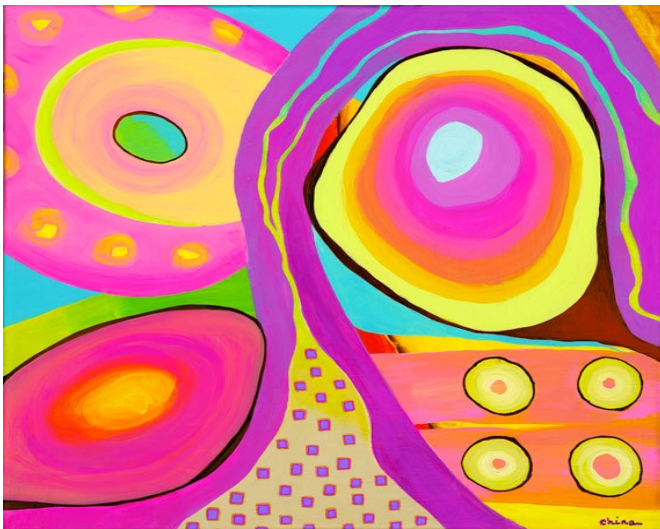


Meteorites and Space



The asteroid impact at Wetumpka produced Alabama's greatest natural disaster in the last 85 million years. The impact of an asteroid or comet causes damage to the Earth's crust resulting in an impact crater.

Meteors are just bits of dust or rocks from space that get sucked into the Earth's gravitational pull when they come to close. As they enter our atmosphere and plummet towards the ground, they burn up, usually about 60 miles before they get close enough to hit you in the head. When the meteors burn up, we on the ground can sometimes see the brief flash of light. This is what people call "shooting stars." Usually, the "space dust" that make meteors comes from the tails of passing comets. Every once in a while, a meteor will be big enough to weather its fiery descent and land on Earth, where it earns the title "meteorite."

Asteroids are also known as "minor planets." They are made up of much of the same stuff as planets, but they are much smaller. The four largest known are spherical or ball-shaped, like the Earth, and have diameters of between 100 and 500 miles. A diameter is an imaginary line running from one side of a circle or sphere through the center to the other side. In comparison to Earth's moon, which has a diameter of about 2100 miles, even the largest asteroids are still pretty small. The rest of the asteroids range in diameter all the way down to less than 5 miles across. Asteroids with diameters of 30 miles or less no longer have a spherical shape. Most asteroids orbit the Sun between Mars and Jupiter. Although some asteroids have sizes comparable to some moons in our solar system, these are not moons because they only orbit the Sun, and not any planets, as the moons do. The largest asteroids are called planetoids.

Comets are often referred to as "dirty snowballs." They are left over from the formation of stars and planets billions of years ago. Before zipping around the Sun with their characteristic big tails, comets that we see in our solar system start out as big chunks of rock and ice just floating around in something called the Oort Cloud. When the gravity from a large passing body, like a star, becomes strong enough, some large chunks of ice get pulled away from the cloud and head toward the Sun. As that ball of ice gets close enough to the Sun, its heat begins to melt some of the ice that makes up the comet. The melted ice becomes a gaseous tail that extends away from the source of the heat (in this case, the Sun). The tail is pushed out by the Sun's solar wind.

What keeps the comet in motion and guides its path is the gravity from all the planets and stars it passes. When a comet is in our solar system, most of the gravity affecting the comet's motion is due to the Sun. As a comet gets closer to the Sun it moves faster and faster, because the closer an object is to the Sun the stronger the Sun's gravity acts on it. As well as moving faster near the Sun, the comet's tail will grow in length since more of the ice will be evaporating.