Use for space object sorting activity

Star

Stars are made of extremely hot gases. Stars produce heat and light through a type of nuclear reaction called fusion. Stars can vary in size and temperature. Stars can be blue, white, yellow, or red, depending on their temperature, with blue being the hottest and red the coolest. They can vary in size as well.

Moon

Moons are spherical objects that orbit planets. Every planet in the Solar System, except for Mercury and Venus, has at least one moon. Moons may be made of rock, "ice," or both. The "ice" can be frozen water or frozen gasses. Moons vary greatly in size.

Comet

Comets are made of rock, dust, frozen water, and gases. Comets appear to have a fuzzy head and a long tail. Their orbits are much more elliptical than planets when they orbit the Sun. For most of their journey around the sun they are too far away to be seen. When a comet is far away from the Sun, it is a cold ball of ice and rock. As it approaches Earth, the heat from the Sun causes the comet to form a tail of gas, water vapor, and that streams off the comet in a direction away from the Sun.

Galaxy

A galaxy is a collection of billions of stars. The swirling mass of stars, dust, and gases is held together by the force of gravity. Galaxies are identified by their shape. Our Solar System is located in the Milky Way.

Planet

Planets are spherical objects that orbit around stars. They may be rocky or mostly gaseous. Planets usually do not give off their own light, instead, they absorb and reflect light from a star.
Asteroid

Asteroids are pieces of rock moving through space. They can be anywhere from less than a kilometer to over 1,000 kilometers in diameter. There is a belt of many asteroids orbiting the Sun between the planets Mars and Jupiter.

Manufactured Object

Manufactured objects in space include satellites, equipment, and debris left behind from space missions.

Dwarf Planet

A dwarf planet is a spherical object that orbits the Sun, but does not have enough mass to clear the area around the orbit of other objects. Pluto is an example of a dwarf planet.
Space Object 1

Shape: irregular
Orbits: Earth
Composition: metal
Size: 5.2 x 1.5 meters
Mass: 750 kg

Space Object 2

Shape: irregular
Orbits: Earth
Composition: cloth
Size: 30 cm x 15 cm
Mass: 2.5 kg

Space Object 3

Shape: round
Orbits: earth
Composition: rocky
Size: 3,500 km
Mass: 74,000,000,000,000,000,000,000,000 kg

Space Object 4

Shape: irregular
Orbits: sun
Composition: rocky and icy
Size: 10 km x 10 km
Mass: 100,000,000,000,000 kg

Space Object 5

Shape: round
Orbits: sun
Composition: gaseous
Size: 143,000 km
Mass: 1,900,000,000,000,000,000,000,000 kg
Other: has rings

Space Object 6

Shape: irregular
Orbits: sun
Composition: rocky
Size: 1.4 km x 1.2 km
Mass: 1,000,000,000,000,000 kg

Space Object 7

Shape: round
Orbits: nothing
Composition: gaseous
Size: 1,390,000 km
Mass: 2,000,000,000,000,000,000,000,000,000 kg
Other: produces heat and light

Space Object 8

Shape: irregular
Orbits: Mars
Composition: rocky
Size: 14 km x 11 km
Mass: 1,800,000,000,000,000 kg

Space Object 9

Shape: round
Orbits: the sun
Composition: rocky and icy
Size: 2,400 km
Mass: 13,000,000,000,000,000,000,000,000 kg

Space Object 10

Shape: round
Orbits: the Sun
Composition: gaseous
Size: 49,500 km
Mass: 100,000,000,000,000,000,000,000,000 kg
Other: has rings

Space Object 11

Shape: round
Orbits: the Sun
Composition: rocky
Size: 13,000 km
Mass: 6,000,000,000,000,000,000,000,000,000 kg

Space Object 12

Shape: round
Orbits: the Sun
Composition: gaseous
Size: 120,500 km
Mass: 570,000,000,000,000,000,000,000,000 kg
Other: has rings
Space Object 13
Shape: round
Orbits: galaxy center
Composition: gaseous
Size: 556,000 km
Mass: 600,000,000,000,000,000,000,000,000,000 kg
Other: produces heat and light

Space Object 14
Shape: round
Orbits: the Sun
Composition: rocky
Size: 7,000 km
Mass: 640,000,000,000,000,000,000,000,000,000 kg

Space Object 15
Shape: round
Orbits: the Sun
Composition: gaseous
Size: 51,000 km
Mass: 87,000,000,000,000,000,000,000,000,000 kg
Other: has rings

Space Object 16
Shape: round
Orbits: the Sun
Composition: rocky
Size: 12,000 km
Mass: 4,900,000,000,000,000,000,000,000,000 kg

Space Object 17
Shape: round
Orbits: the Sun
Composition: rocky
Size: 5,000 km
Mass: 330,000,000,000,000,000,000,000,000 kg

Space Object 18
Shape: round
Orbits: nothing
Composition: gaseous
Size: 20,000,000 km
Mass: 300,000,000,000,000,000,000,000,000 kg
Other: produces heat and light

Space Object 19
Shape: irregular
Orbits: the Sun
Composition: rocky
Size: 950 km
Mass: 870,000,000,000,000,000,000,000,000,000 kg

Space Object 20
Shape: irregular
Orbits: the Sun
Composition: rocky and icy
Diameter: 40 km
Mass: 1,000,000,000,000 kg

Space Object 21
Shape: irregular
Orbits: nothing
Composition: many stars and their solar systems
Diameter: 150,000,000,000,000,000 km
Mass: 20,000,000,000,000,000,000,000,000,000,000 kg

Space Object 22
Shape: spiral
Orbits: nothing
Composition: many stars and their solar systems
Diameter: 950,000,000,000,000,000 km
Mass: 2,000,000,000,000,000,000,000,000,000,000 kg

Space Object 23
Shape: round
Orbits: Jupiter
Composition: rocky
Diameter: 5,500 km
Mass: 150,000,000,000,000,000,000,000,000 kg

Space Object 24
Shape: round
Orbits: the Sun
Composition: rocky and icy
Diameter: 2,400 km
Mass: unknown