

Planet game: Polyplanet asteroid and Planet formation

- Asteroids are minor planets, called (the bigger ones) Planetoids.
- These come in three main groups:

C-type	M-type	S-type
Carbon rich	metallic	Silicate (Stony)
Compositions	Compositions	Compositions

- Asteroids are formed minerals & rock whilst comets are formed from ice & dust.

- "Nearly all asteroids are irregularly shaped, although a few of the largest are nearly spherical, such as Ceres (asteroid) (Choi, 2017)

- More than 150 asteroids are also known to have a small companion moon (Choi, 2017)

- Many asteroids seemingly have been captured by a planet's gravity and become moon (Choi, 2017)

- Mars' moons, Phobos and Deimos (Choi, 2017)

- "Binary or double asteroids also exist, in which two asteroids of roughly equal size orbit each other and triple asteroid systems are known as well (Choi, 2017) - multiple clusters"

- Asteroids come in a variety of shapes and size. Some are solid bodies, while others are smaller piles of rubble bound together by gravity. "pile of rocks" Some even have ice tails

- perhaps small asteroids being pulled into the gravity could form ring planets.

Meteorite Composition

Iron meteorites	Stony meteorites
<ul style="list-style-type: none"> Iron: 91 percent Nickel: 8.5 percent Cobalt: 0.6 percent 	<ul style="list-style-type: none"> Oxygen: 6 percent Iron: 26 percent Silicon: 18 percent Magnesium: 14 percent Aluminum: 1.5 percent Nickel: 1.4 percent Calcium: 1.3 percent

Water delivery

- "Asteroid and comet collisions may have delivered the water-ice and other carbon-based molecules to the planet that allowed life to evolve."

Asteroid type

C-type:

- grayish in colour
- most common
- Probably consist of crystalline stony silicate rocks

M-type

- reddish in colour
- They seem to be made up of nickel-iron.

S-type

- greenish to reddish in colour
- account for about 17 percent known asteroids
- They appear to be made of silicate materials and nickel-iron.

Iron/nickel
↓
metallic planets

Ice/water remnant
↓
Water planet on Ice Planet

Carbon
↓
rocky planet

Possible moon mechanics

- When an asteroid is drawn in by a planet's gravity pull
- Players can have the choice to throw more asteroids at them to form moon

- Moons can have perks

- Double the amount of faith generated for interval times (this could become a variable interval reward)

"There is a steady form of engagement as the player keeps checking to see if they got the rewards"

- all moon perks could become variable interval rewards: moon cycles/moon perks



Increase/
Doubles or
even tripling

Faith generated
for a two minute
interval



Increase/
Doubles or even
triple

