

### Rocky

- 1: a rocky planet much like Mercury
- 2: a rocky planet resembling Venus
- 3: a rocky planet similar to Earth
- 4: a rocky planet similar to Mars

### Gaseous

- 5: a gas giant resembling Jupiter; the rocky core alone is three times Earth's diameter [27 inside]
- 6: a gas giant resembling Saturn, with a rocky core about two times Earth's diameter [28 inside]
- 7: a gas giant much like Uranus, its core about 1.5 times Earth's diameter [29 inside]
- 8: a gas giant resembling Neptune with a core measuring 1.5 times Earth's diameter [29 inside]

### Large Ice Balls (some rock):

- 9: a large ice ball with some rock, like the ninth planet Pluto
- 10: a large ice ball with some rock, resembling Pluto's only satellite, Charon
- 11: a large ice ball with some rock, resembling Jupiter's moon Ganymede
- 12: a large ice ball with some rock, like Jupiter's moon Callisto

### Mixture of Rock and Ice

- 13: a mixture of rock and ice, similar to Jupiter's moon Io
- 14: a mixture of rock and ice, like the jovian moon Europa
- 15: a mixture of rock and ice, like the Neptune satellite Triton
- 16: a mixture of rock and ice, similar to the Saturn moon Titan; its opaque atmosphere means the surface composition is unknown

### Mostly Ice

17. a planet of mostly ice, resembling the chilly Saturn moon Hyperion
18. an icy body similar to Saturn's second largest satellite Rhea, with a bright spot at the edge and irregular crater markings
19. a planet of mostly ice, resembling Saturn's largest satellite Tethys, with a low density
20. an icy planet like the Saturn moon Enceladus; small, with a diameter of only around 500 km, and a varied surface
21. an icy planet resembling the Saturn moon Dione; slightly larger than satellite Tethys at more than 1100 km, with surface variations in brightness and a core with high rock content
22. an icy planet resembling the Saturn moon Iapetus, with a low density and a diameter of over 1400 km

### Small Rocks (Misshapen)

23. a rocky potato-shaped body like the martian satellite Phobos; marked with chains of craters
24. a rocky body like the martian satellite Deimos; craters are indistinct
25. a small rocky planet resembling the asteroid Ida

### Small Ice Balls (Misshapen)

26. a small ice ball resembling Halley's Comet (???)
27. a planet resembling Earth if it were drained of water, but with a size three times Earth's diameter
28. a planet resembling a large Mars, with 1.5 Earth's diameter
29. a planet like Mercury but larger, with twice Earth's diameter
30. (Planet 28 wrapped by Jupiter) a planet with a large mass and banded clouds like Jupiter's
31. (Planet 29 wrapped by Jupiter) a planet with a core twice Earth's diameter, showing atmospheric patterns like Jupiter
32. (Planet 28 wrapped by Saturn) a planet with a core 1.5 Earth's diameter, exhibiting a ring system like Saturn's
33. (Planet 29 wrapped by Saturn) a planet with a core twice Earth's diameter, exhibiting a ring system like Saturn's
34. (Planet 27 wrapped by Uranus) a planet whose core along is three times Earth's diameter,
35. (Planet 28 wrapped by Uranus)
36. (Planet 27 wrapped by Neptune)
37. (Planet 28 wrapped by Neptune)

### Lose gas quickly, less gravity to hold gas, and less gas to lose

38. a planet measuring three times Earth's diameter, with an atmosphere similar to but less substantial than Jupiter's. (wrapping planet 29)
39. a planet slightly larger than its core measuring twice Earth's diameter, surrounded by the light gases hydrogen and helium--the same gases found in Jupiter (wrapping planet 28)
40. a planet slightly larger than twice Earth's diameter, exhibiting a ring system like Saturn's (wrapping planet 29)
41. a planet slightly smaller than twice Earth's diameter, exhibiting a ring system like Saturn's (wrapping planet 28)
42. Uranuslike but with only 1.7 Earth diameters, (wrapping planet 29)
43. Neptunelike planet, but with only 1.6 Earth diameters, (wrapping planet 28)
44. Jupiterlike with much weaker red, orange, and brown colors, much stronger yellows and greens, a bit like Saturn only enhanced in color.
45. Jupiterlike with still more complex circulation patterns so that instead of a basic look of parallel bands, we see far more swirls and whorls like those around the Great Red Spot.
46. Neptunelike planet with roughly Jupiter's coloration, but much closer to Neptune in lack of evident bandedness, i.e., a Neptune-colored far more red and brown than blue.
47. Neptunelike planet with pronounced circulation patterns, much like Jupiter or even like planet 45, but with Neptune's basic blue and green coloration.
48. Saturnlike planet with much enhanced banded circulation pattern and more reddish, brownish, Jupiterlike coloration in that pattern, but still yellowish overall.

49. Superlarge planet, say 1000 Earth masses (3x Jupiter's mass), with a mixture of Neptune's blue background and Jupiter's red-orange-brown circulation pattern.
50. Superlarge planet, same mass as 49, but with much larger central core, say 100-200 Earth masses. All the planets up to now have cores no more than 50 Earth masses.