

Dunking the Planets: Selecting Appropriate Foods

Dunking the Planets will demonstrate that only Saturn would float in a cosmic-sized bathtub! Use this guide to select appropriate foods: Only the fruit representing Saturn (highlighted in gray) should float and the rest should sink. The chart below gives the scaled sizes of the planets if the Sun was the size of a giant pumpkin. They are ordered by size to make substitution easier. Be sure to test your foods prior to the program!

		Diameters (reduced by factor of 1 billion)	Food Representative (be creative!)
Largest	Sun	55 inches (1392 mm)	Giant pumpkin (or a Halloween orange pumpkin garbage bag)
	Jupiter	5 ½ inches (142.9 mm)	Large mango or potato
	Saturn	4 ½ inches (116.4 mm)	Large unpeeled orange or cantaloupe or coconut
	Uranus	2 inches (51.1 mm)	Plum
	Neptune	2 inches (49.5 mm)	Kiwi or lime (not a lemon)
	Earth	½ inch (12.7 mm)	Small grape
	Venus	½ inch (12.1 mm)	Large blueberry
	Mars	¼ inch (6.8 mm)	Pea or navy bean
Smallest	Mercury	3/8 inch (4.9 mm)	Uncooked orzo pasta

The chart below gives the densities of the actual planets. The inner planets are much more dense than the giant planets, and this trend relates to their compositions. The inner planets are mainly made up of dense rock; the giant planets are generally composed of gas.

	Density in g/cm ³ Water = 1 g/cm ³	Would float in water:
Mercury	5.43	No
Venus	5.24	No
Earth	5.52	No
Mars	3.93	No
Jupiter	1.33	No
Saturn	0.69	Yes
Uranus	1.32	No
Neptune	1.64	No