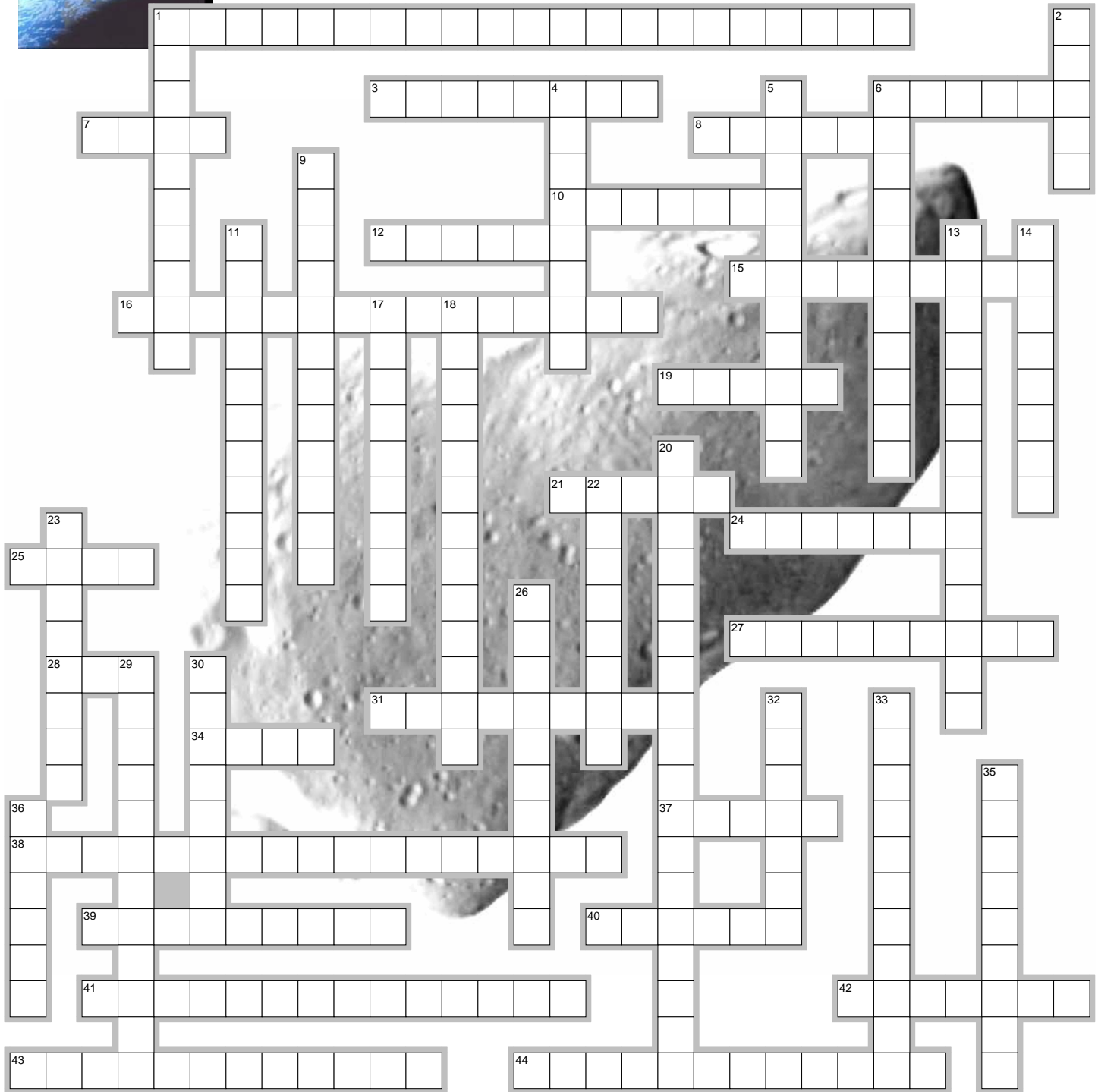


METEORITES

SDSU Department of Geological Sciences, December, 2007



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Across

1. (2 words) A type of primitive chondrite with evidence of nebular processes.
3. A very large meteor.
6. A bowl-like depression. On planetary surfaces.
7. "A meteorite that was not seen to fall, but found at some later date. "
8. A bright light produced when a meteoroid is frictionally ablated as it passes through an atmosphere.

10. An iron meteorite made almost entirely of taenite.
12. A collision between two planetary bodies.
15. A type of primitive chondrite that chondrite is dominated by the silicate mineral enstatite.
16. (2 words) "A rock that has been heated and compressed so that it recrystallizes, but does not melt."
19. A rocky and icy body in orbit around the sun. These objects contain volatile material (such as hydrogen) which meteorites lack.
21. "Very hot, fluid rock."
24. Spherule of molten rock ejected from an impact crater and then cooled rapidly to produce glass.
25. A meteorite that was observed to fall and recovered.
27. "Process of particles sticking together to form larger bodies; for example, solar nebular dust accreted to form chondrules, and planetesimals accreted to form planets."
28. "The border of a land form, such as the curved edge surrounding the top part of a crater."
31. A fragment of one planetary body that lands on another planetary body.
34. Molten rock that is erupted onto the surface of a planet and is hot enough to flow.
37. "Unusually high pressures produced briefly by an impact. These pressures may be sufficiently high to shatter, melt, and vaporize rocky material."
38. (2 words) "The most common type of meteorite to fall on Earth. Some are primitive specimens containing evidence of nebular processes, while others have been metamorphosed on a planetary body."
39. A small (<1 km) natural object whose orbit around the sun may cause it to collide with other planetary bodies.
40. Material thrown out of a crater during an impact event.
41. When a (partially) molten body has been divided into two or more fractions of dissimilar compositions.
42. A common class of achondrite meteorites composed of pigeonite and plagioclase.
43. (2 words) The region of space between Mars (1.5 AU) and Jupiter (5.2 AU) where most asteroids are found
44. "A rocky and/or icy body, a few to several tens of kilometers in size, that was produced in the solar nebula."

Down

1. Millimeter-sized glass spheres found in abundance in chondrite meteorites
2. The largest of the known asteroids; a minor planet.
4. Loss of material from the surface of a meteoroid being heated by friction as it passes through an atmosphere.
5. (2 words) A large area over which impact melt spherules or tektites are found.
6. Indicates a rock is composed of mineral crystals rather than glass.
9. A rock that was once molten.
11. (2 words) Several craters along a general line.
13. (2 words) A tiny particle from one planetary body which lands on another planetary body.
14. "Loose, unconsolidated rock, mineral, and glass fragments; on the Moon and some other planetary bodies, this debris is produced by impacts and blankets the surface."
17. A stony-iron meteorite in which nodules of olivine (a silicate mineral) are surrounded by a network of iron-nickel metal.
18. (2 words) "Meteorites that are made almost completely, of nickel-iron metal."
20. (3 words) Spherules of shock-melted rock ejected from an impact crater.
22. A fragment of a planetesimal or possibly an aggregate of fragments.
23. To change something from a liquid or a solid
26. "A stony meteorite representing differentiated planetary material. Because differentiation is an igneous process, these are igneous rocks or breccias of igneous rocks."
29. A type of stony-iron meteorite with silicate material and iron-nickel metal. These meteorites have been brecciated and metamorphosed.
30. "Rocky material consisting, in part, of the elements silicon and oxygen. "
32. "A rock consisting of many angular fragments, some of which may have different compositions."
33. (2 words) The disk of gas and dust that surrounded the sun when it was forming.
35. A meteorite containing chondrules and other components produced in the solar nebula.
36. A semi-spherical fragment of rock embedded in a matrix with a different composition.