UNIVERSITY OF LOUISIANA AT LAFAYETTE SCIENCE MUSEUM

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MOONS OF OUR SOLAR SYSTEM

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Since there are over 280 known moons in our solar system, all have been given names or designations. The problem of naming is compounded when space pictures are analyzed and new moons are discovered (or on rare occasions when spacecraft images of small, distant moons are found to be imaging flaws, and a moon is removed from the list). This is a list of the planets' known moons, with their names or other designations. If a planet has more than one moon, they are listed from the moon closest to the planet to the moon farthest from the planet. Since the naming systems overlap, many moons have more than one designation, in each case, the first identification listed is the official one.

MERCURY *and* **VENUS** *have no known moons.*

EARTH *has one known moon. It has no official name.*

MARS *has two known moons:* Phobos and Deimos.

ASTEROIDS *(Small moons have now been found around several asteroids. In addition, a growing number of asteroids are now known to be binary, meaning two asteroids of about the same size orbiting each other. Whether there is a fundamental difference in these situations is uncertain.)*

JUPITER *has 95 known moons. Names such as "S/2003 J2" are provisional.*
Metis (XVI), Adrastea (XV), Amalthea (V), Thebe (XIV), Io (I), Europa (II), Ganymede (III), Callisto (IV), Themisto (XVIII), Leda (XIII), Himalia (Hestia or VI), Ersa (LXXI), S/2018 J2, Pandia (KXV), Lysithea (Demeter or X), Elara (Hera or VII), S/2011 J3, Dia (S/2000 J11), S/2018 J4, Carpo (XLVI), Valetudo (S/2016 J2), Euporie (XXXIV), S/2003 J18, S/2010 J2, S/2003 J16, S/2003 J2, S/2017 J7, S/2016 J1, S/2017 J3, S/2021 J1, Euanthe (XXXIII), Orthosie (XXXV), Thyone (XXIX), S/2022 J3, Mneme (XL), Harpalyke (XXII), Hermippe (XXX), Praxidike (XXVII), Thelxinoe (XLII), S/2021 J2, Eupheme (LX), Helike (XLV), Iocaste (XXIV), Ananke (Adrastea or XII), S/2017 J9, S/2021 J3, S/2003 J12, S/2022 J1, S/2016 J3, S/2011 J1, S/2022 J2, S/2003 J19, S/2018 J3, S/2021 J5, S/2003 J10, Arche (XLIII), S/2021 J4, Pasithee (XXXVIII), Herse (L), S/2003 J24, Chaldene (XXI), Kale (XXXVII), Isonoe (XXVI), Aitne (XXXI), S/2017 J5, S/2017 J8, Erinome (XXV), S/2017 J2, S/2010 J1, Taygete (XX), Carme (Pan or XI), S/2021 J6, Kalyke (XXIII), Eukelade (XLVII), Eirene (LVII), Kallichore (XLIV), S/2003 J9, S/2003 J4, S/2017 J6, Philophrosyne (LVIII), Eurydome (XXXII), Autonoe (XXVIII), S/2011 J2, Sponde (XXXVI), S/2017 J1, Pasiphae (Poseidon or VIII), S/2016 J4, Megaclite (XIX), Sinope (Hades or IX), Hegemone (XXXIX), Aoede (XLI), Callirrhoe (XVII), Cyllene (XLVIII), Kore (XLIX), and S/2003 J23.

SATURN *has 146 known moons. Names such as "S/2004 S16" are provisional.*

S/2009 S1, Pan (XVIII), Daphnis (XXXV), Atlas (XV), Prometheus (XVI), Pandora (XVII), Epimetheus (XI), Janus (X), Aegaeon (LIII), Mimas (I), Methone (XXXII), Anthe (XLIX), Pallene (XXXIII), Enceladus (II), Tethys (III), Telesto (XIII – co-orbits with Tethys), Calypso (XIV – co-orbits with Tethys), Polydeuces (XXXIV – co-orbits with Dione), Dione (IV), Helene (XII – co-orbits with Dione), Rhea (V), Titan (VI), Hyperion (VII), Iapetus (VIII), Kiviuq (XXIV), Ijiraq (XXII), S/ 2019 S1, S/2005 S4, S/2020 S1, Phoebe (IX), S/2006 S20, S/2006 S9, Paaliaq (XX), Skathi (XXVII), S/2007 S2, S/2007 S7, S/2007 S5, S/2004 S37, S/2004 S47, Albiorix (XXVI), S/2004 S40, S/2019 S2, S/2007 S8, Bebhion (XXXVII), S/2020 S7, S/2004 S41, S/2019 S3, Erriapus (XXVIII), S/2004 S31, S/2004 S29, Siarnaq (XXIX), Skoll (XLVII), S/2020 S3, Tarvos (XXI), Tarqeq (LII), S/2019 S4, S/2019 S14, S/2020 S2, S/2020 S4, S/2004 S42, Greip (LI), Hyrokken (XLIV), S/2020 S5, S/2004 S13, S/2007 S6, Mundilfari (XXV), S/2006 S1, Jarnsaxa (L),S/2006 S10, S/2004 S43, S/2019 S5, Gridr (LIV), Narvi (XXXI), Bergelmir (XXXVIII), S/2007 S3, Suttungr (XXIII), S/2004 S44, S/2006 S11, Eggther (LIX), Hati (XLIII), S/2006 S12, S/2004 S17, S/2004 S12, S/2019 S6, S/2004 S45, S/2006 S13, Bestla (XXXIX), 2004 S46, S/2019 S8, Angrboda (LV), Farbauti (XL), Beli (LXI), Thrymr (XXX), S/2019 S7, Gerd (LVII), S/2019 S11, S/2007 S9, S/2019 S9, Aegir (XXXVI), S/2019 S10, S/2019 S12, S/2019 S13, S/2005 S5, S/2020 S6, S/2006 S14, S/2009 S15, S/2006 S3, Skrymir (LVI), Gunnlod (LXII), S/2004 S7, S/2006 S15, S/2004 S28, S/2020 S8, Alvaldi (LXV), S/2004 S50, Kari (XLV), S/2006 S16, S/2004 S48, Fenrir (XLI), S/2006 S17, Surtur (XLVIII), S/2004 S39, S/2004 S49, Geirrod (LXVI), Ymir (XIX), Loge (XLVI), S/2004 S24, S/2006 S19, S/2019 S17, S/2006 S18, S/2019 S19, S/2019 S20, S/2019 S18, S/2004 S36, S/2019 S16, Thiazzi (LXIII), S/2004 S21, S/2004 S53, S/2004 S34, Fornjot (XLII), S/2020 S10, S/2004 S51, S/2020 S9, S/2019 S21, S/2004 S52, and S/2004 S26.

URANUS *has 27 known moons.*

Cordelia (VI), Ophelia (VII), Bianca (VIII), Cressida (IX), Desdemona (X), Juliet (XI), Portia (XII), Rosalind (XIII), Cupid (XXVII), Belinda (XIV), Perdita (XXV), Puck (XV), Mab (XXVI), Miranda (V), Ariel (I), Umbriel (II), Titania (III), Oberon (IV), Francisco (XXII), Caliban (XVI), Stephano (XX), Trinculo (XXI), Sycorax (XVII), Margaret (XXIII), Prospero (XXI), Setebos (IXX), and Ferdinand (XXIV).

NEPTUNE *has 14 known moons. Names such as S/2002 N1 are provisional.*

Naiad (III), Thalassa (IV), Despina (V), Galatea (VI), Larissa (VII), Hippocamp (XIV), Proteus (VIII),Triton (I), Nereid (II), S/2002 N1, S/2002 N2, S/2002 N3, Psamathe (X), and S/2002 N4.

KUIPER BELT OBJECTS *(The Kuiper Belt is a vast region beyond the orbit of Neptune containing asteroid-sized rocky and icy objects.* ***Pluto*** *is now considered to be a "dwarf planet" and one of the largest known members of the Kuiper Belt (at least one Kuiper Belt Object (KBO) is more massive than Pluto, and there may be more). Moons have now been found orbiting over a dozen KBOs, and some KBOs have more than one moon (Pluto, for instance, has five known moons). As with asteroids, it is difficult to tell whether these objects should be considered as moons or as components of binary or multiple objects. Whether there is a fundamental difference in these situations is uncertain.)*