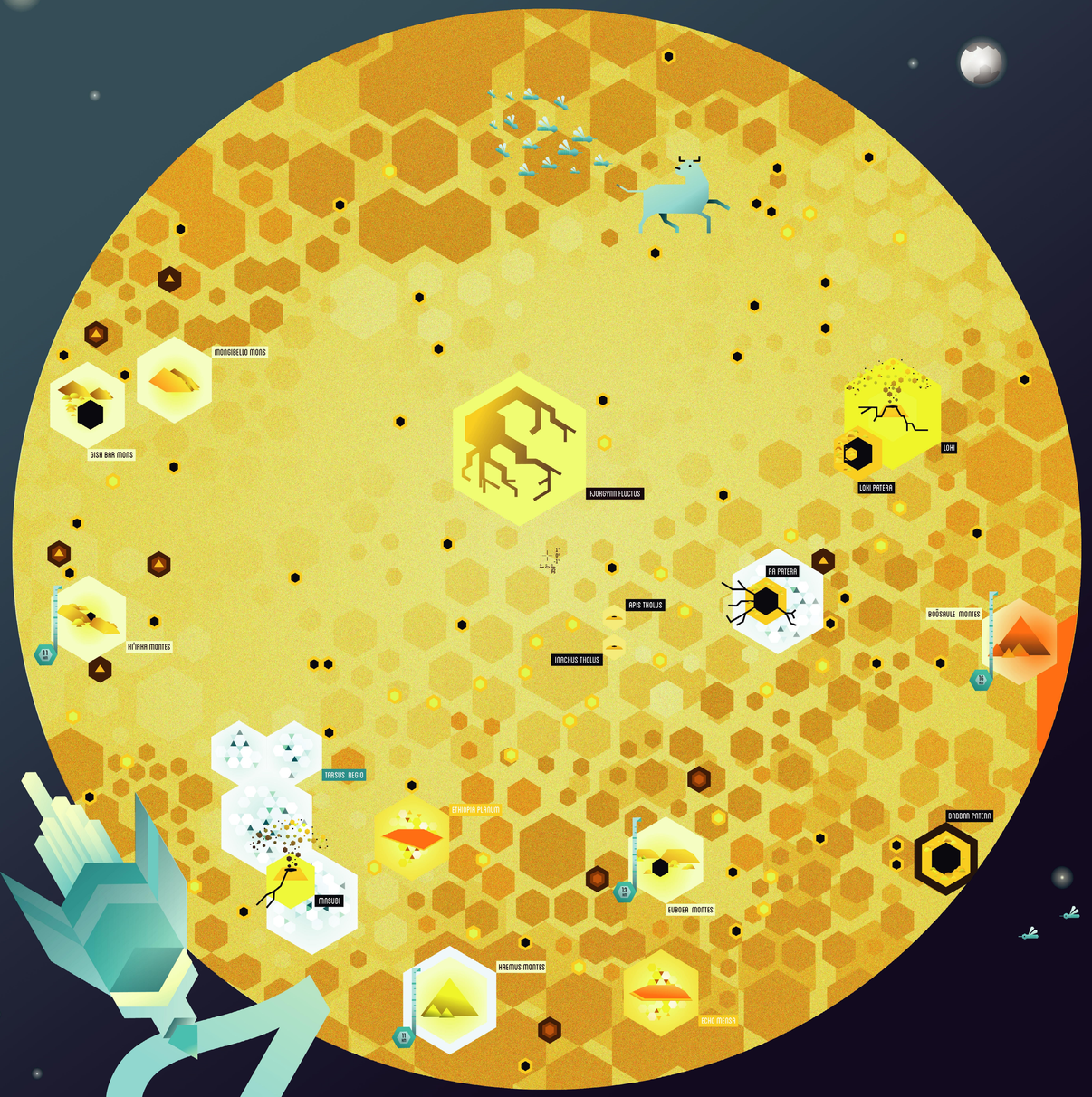
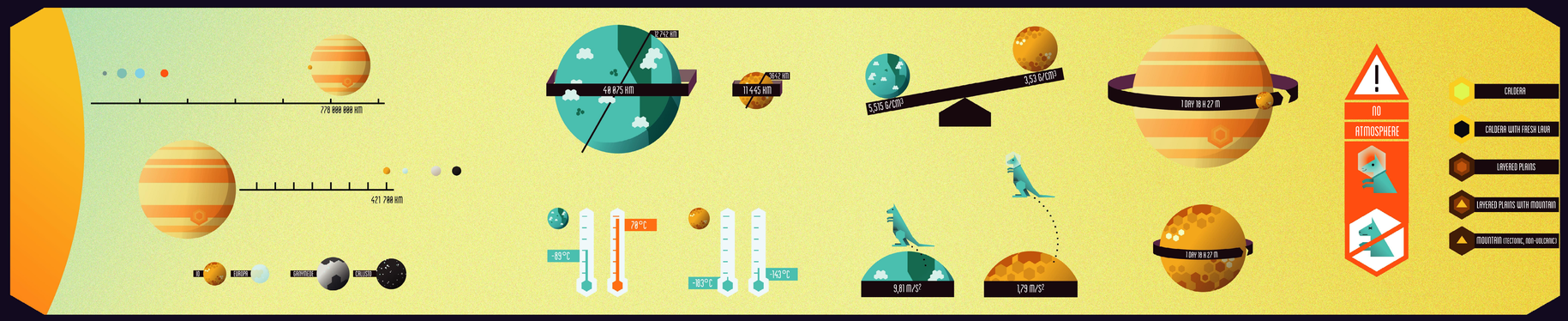


Io

Io (pronounced "EYE oh") is the most active planetary body in the solar system. Even now, dozens of volcanoes eject gas and debris clouds on it. The eruptions spread into the shape of an umbrella; falling back onto the surface, they form a ring around the volcanic centre. There are many volcanoes from which lava flows out regularly. The volcanoes are not high mountains, like on Earth, because Io's lava is very fluid and easy to flow away. The surface is covered mostly with lava flows coloured yellow by sulphur and a few collapsed volcanic craters, but no impact craters. The surface is made up of layers of lava flows covering each other. There are approximately one hundred mountains, which are pushed up in one piece from the crust along near-surface cracks; they are not volcanoes, but masses of rock derived from the old surface. Io is the nearest large moon to Jupiter, so the attraction of Jupiter affects it the strongest, along with strong tugs from the three large moons orbiting further from Jupiter. This force produces the heat required for volcanism and gives the pressure which raises the mountains.



MAP OF IO. Lambert Azimuthal Equal Area Projection. 1 : 11 300 000. 1 cm = 113 km. Editor: Henrik Hargitai. Graphic artist: Dóri Sirály. Technical review: Jim Zimbelman. Supporters: Europlanet 2012 Outreach Funding Scheme, Paris Observatory, International Cartographic Association Commission on Planetary Cartography. Published by Eötvös Loránd University, Budapest. ISBN 978-963-284-432-9, ISBN 978-963-284-431-2 [PDF] Illustration © Dóri Sirály 2014. Text © Henrik Hargitai 2014.
http://childrensmaps.wordpress.com