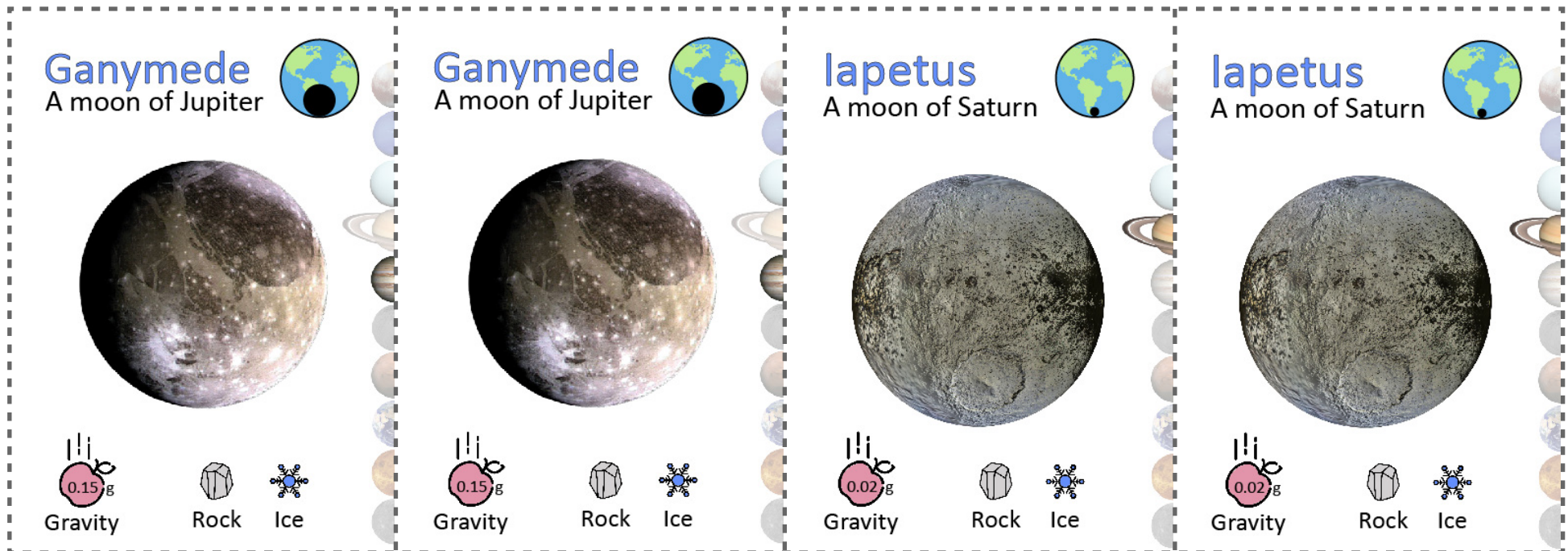
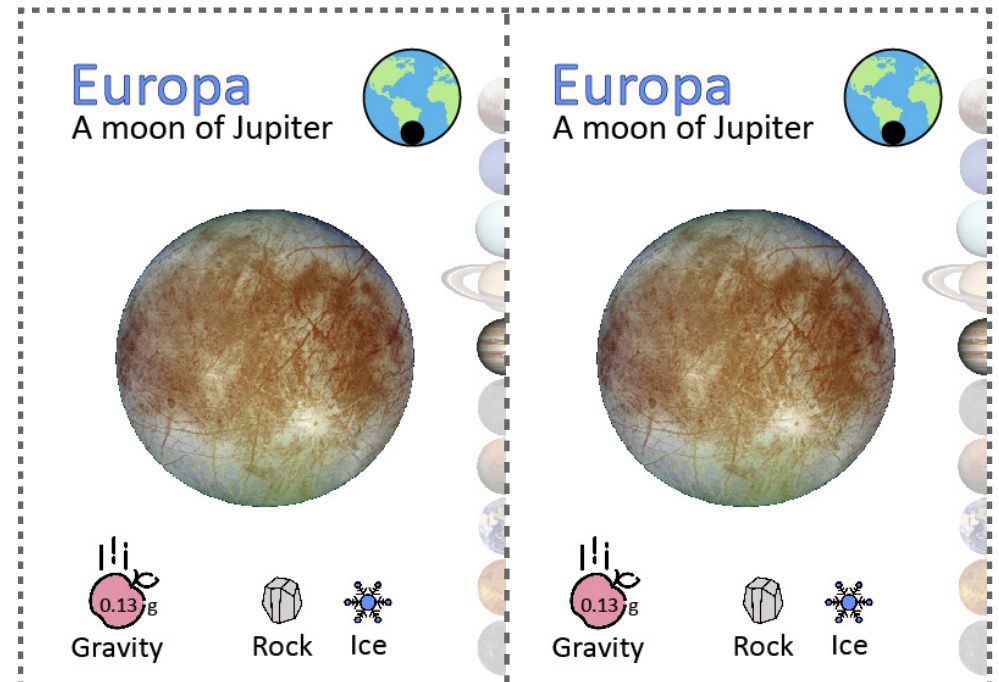
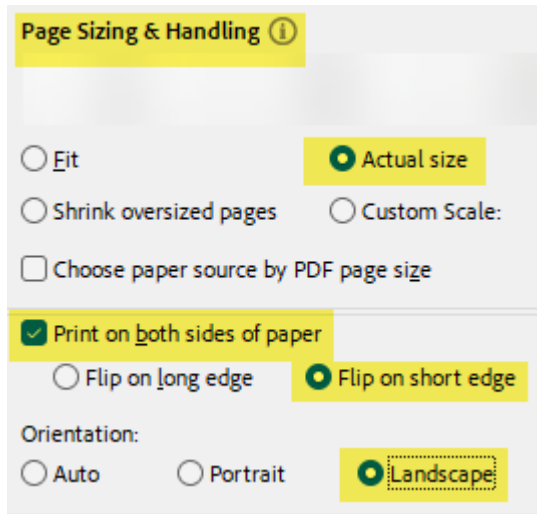


IMPORTANT: In the PDF Print box, be sure to select Actual Size, Print on both sides of paper, and Flip on short edge. See screenshot below.

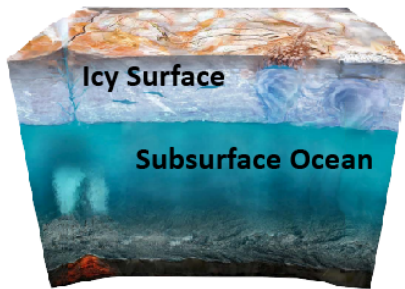


Water in Extreme Environments Planetary Cards 2 (page 1 of 4) Note: What appears to be duplicates are not; they are the fronts of more than 1 card.

175

## SUBSURFACE

Deep beneath Europa's icy shell may be a layer of liquid water.

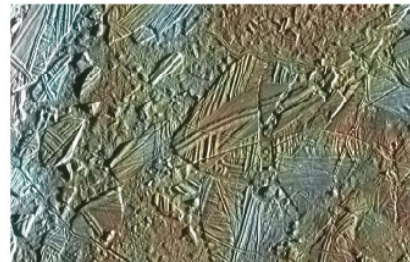


Model of the liquid water ocean deep in Europa's subsurface.

19

## SURFACE

The surface of Europa is covered in water ice.

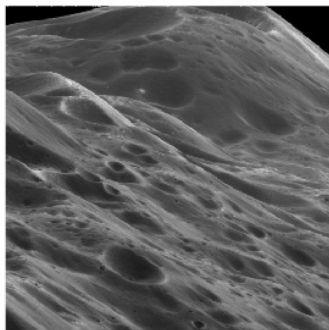


Grooves in the ice on Europa's surface, observed by the Galileo spacecraft.

17

## SURFACE

Iapetus' surface is mostly made of water ice.



High mountains and impact craters observed by the Cassini spacecraft.

153

## SUBSURFACE

Based on its density, Iapetus is made of mostly water ice.

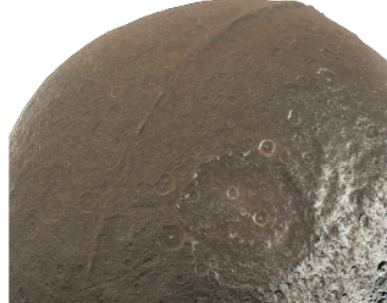
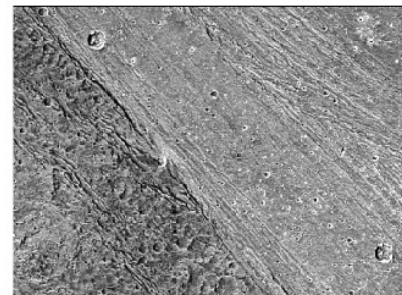


Image from the Cassini spacecraft shows a mysterious high ridge that runs along the moon's equator.

32

## SURFACE

Water ice is widespread on the surface of Ganymede.

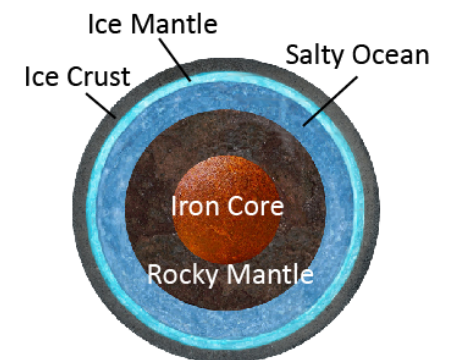


Ganymede's icy crust observed by the Galileo spacecraft.

285

## SUBSURFACE

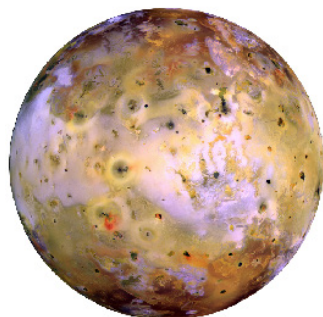
Ganymede may have an ocean of liquid water deep in the subsurface.



Model of the interior of Ganymede.

**Io**

A moon of Jupiter



Gravity



Rock

**Jupiter**

The fifth planet from the Sun



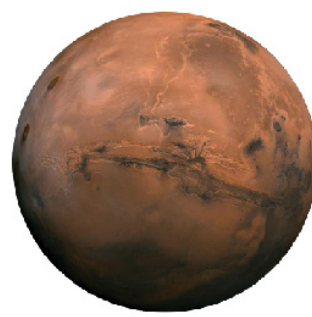
Gravity



Gas

**Mars**

The fourth planet from the Sun



Gravity



Rock

**Mars**

The fourth planet from the Sun



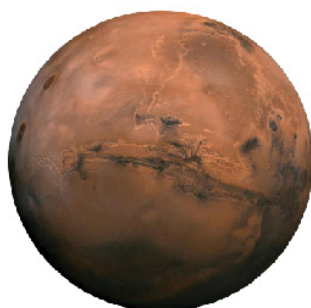
Gravity



Rock

**Mars**

The fourth planet from the Sun



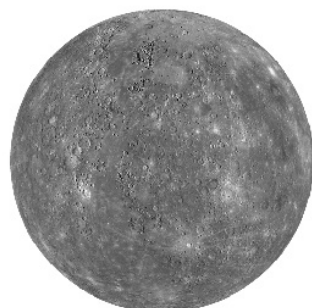
Gravity



Rock

**Mercury**

The first planet from the Sun



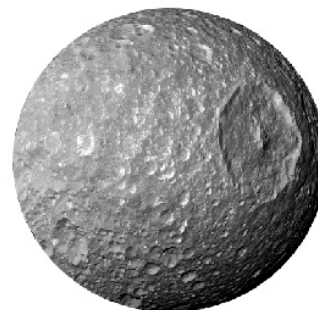
Gravity



Rock

**Mimas**

A moon of Saturn



Gravity



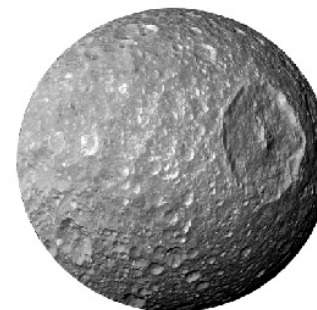
Rock



Ice

**Mimas**

A moon of Saturn



Gravity



Rock



Ice

42

## SURFACE

Water ice is found on Mars at the polar caps.

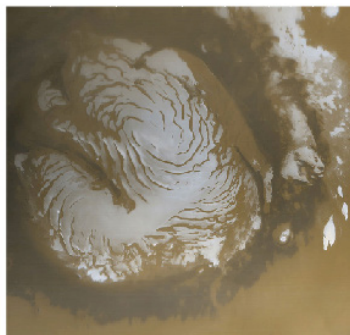
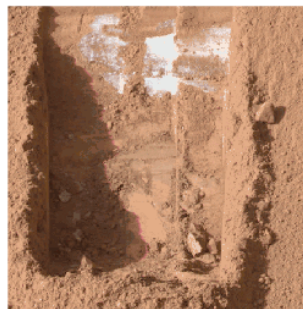


Image of the martian north polar cap acquired by the Mars Orbiter Camera.

22

## SUBSURFACE

Water ice is found on Mars as ground ice and glacial deposits.

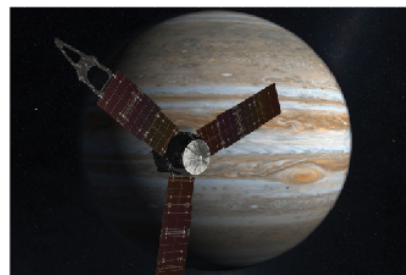


The Phoenix Mars lander discovered ground ice while digging troughs near the north pole.

77

## ATMOSPHERE

Jupiter's atmosphere contains traces of water vapor.

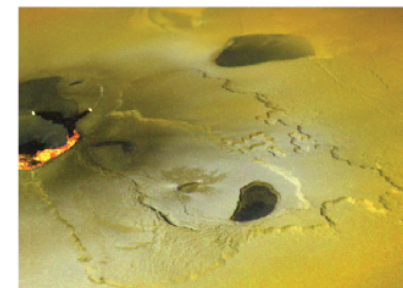


The Juno spacecraft orbiting Jupiter is investigating how much water is in its atmosphere.

0

## SURFACE

Io is the most volcanically active body in the solar system, but has no water.

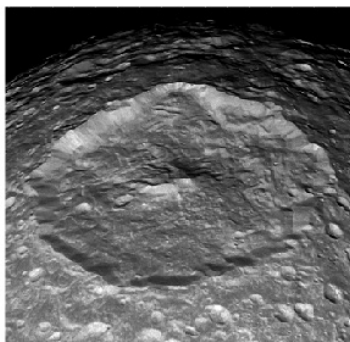


Active volcanic processes were observed on Io by the Galileo spacecraft.

9

## SURFACE

Mimas' surface is mostly water ice.

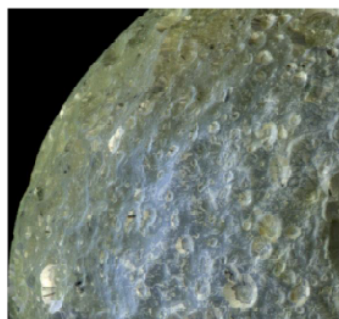


Herschel impact crater, 130 km across, observed by the Cassini spacecraft.

79

## SUBSURFACE

Based on its density, Mimas is made of mostly water ice.

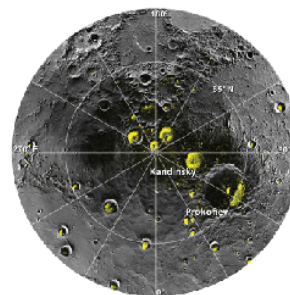


Enhanced color image captured by the Cassini spacecraft shows different colors that may be caused by different ices.

16

## SURFACE

Water ice is present on Mercury in permanently shadowed craters near the poles.

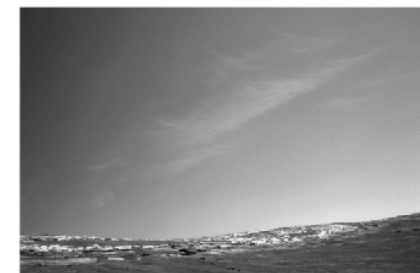


Yellow areas, mapped using radar, represent polar deposits that might contain pockets of water ice.

2

## ATMOSPHERE

Mars' atmosphere contains traces of water, often visible as water-ice clouds.



Clouds observed by the Opportunity rover at Endurance crater.