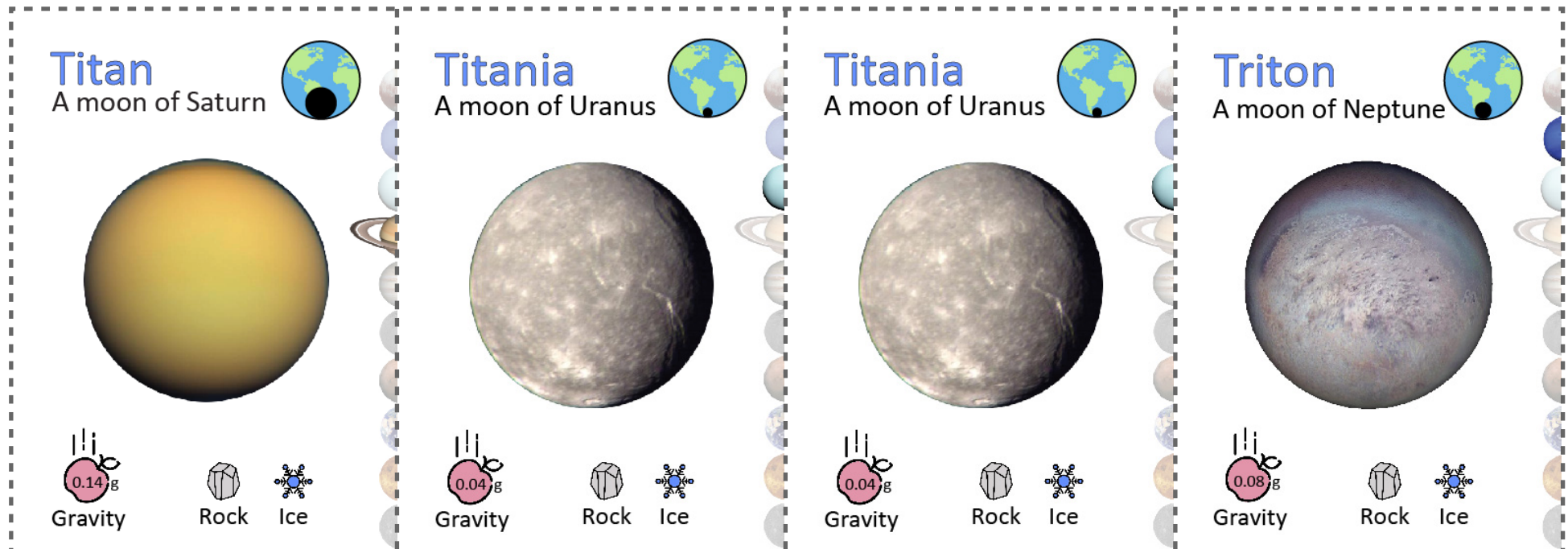
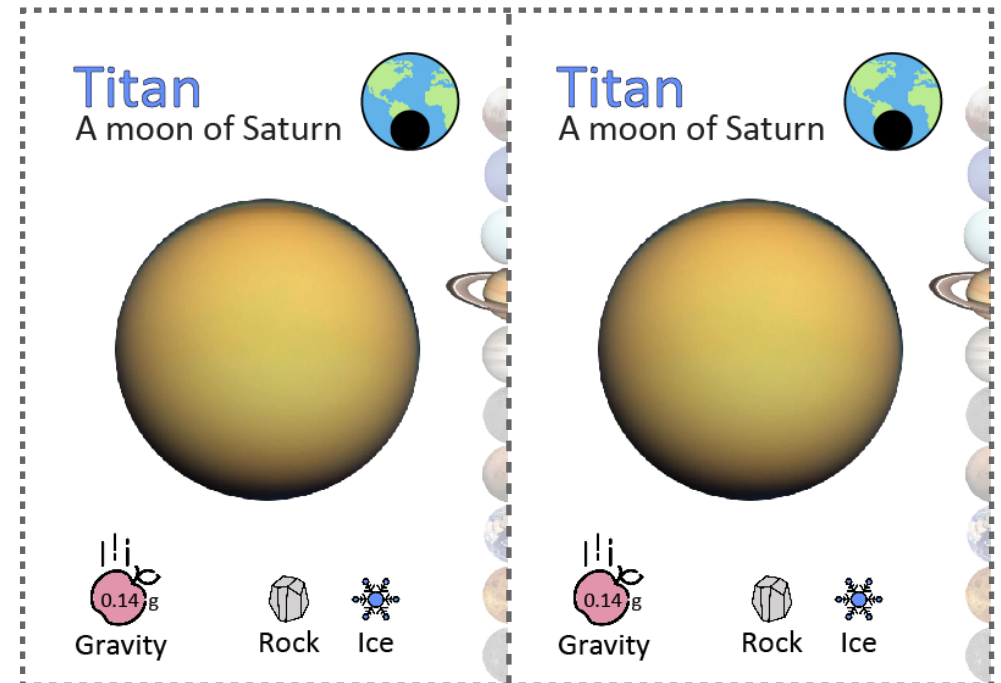
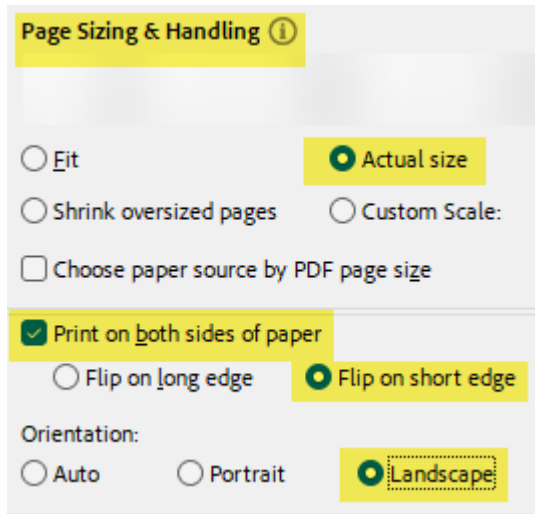


IMPORTANT: In the PDF Print box, be sure to select Actual Size, Print on both sides of paper, and Flip on short edge. See screenshot below.

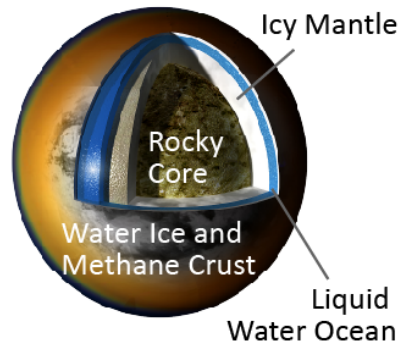


Water in Extreme Environments Planetary Cards 4 (page 1 of 4) Note: What appears to be duplicates are not; they are the fronts of more than 1 card.

255

### SUBSURFACE

Titan is thought to have an extremely salty subsurface ocean of liquid water.



Model of the interior of Titan.

28

### SURFACE

Titan's surface is a mix of water ice and hydrocarbon ice.

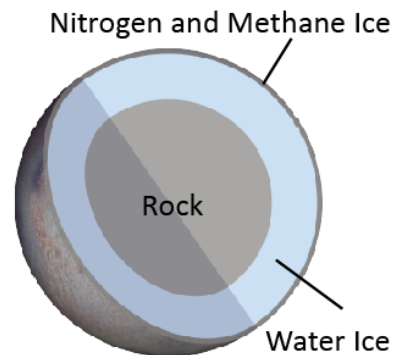


Rounded rocks and pebbles made of water ice, observed by the Huygens probe.

213

### SUBSURFACE

Triton may have a large liquid or slushy ocean beneath its frozen surface.



Model of the interior of Triton.

17

### SURFACE

Titania's surface is made of water ice and carbon dioxide ice.

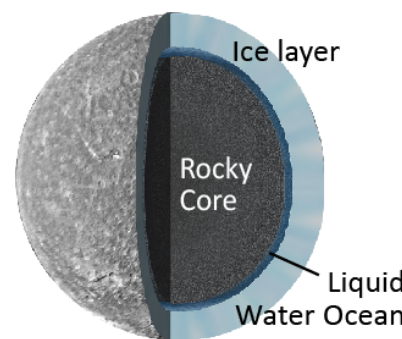


The Voyager 2 spacecraft captured images of Titania, showing craters as well as long rifts and canyons.

156

### SUBSURFACE

There may be a layer of liquid water at the boundary of Titania's core and mantle.

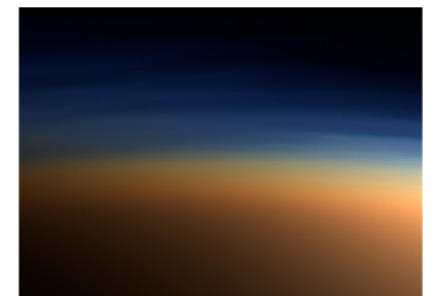


Model of the interior of Titania.

0

### ATMOSPHERE

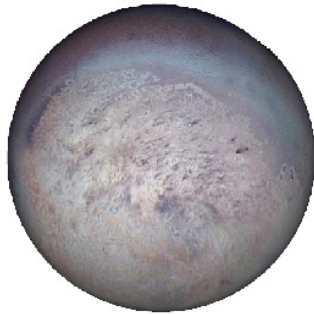
Titan's thick atmosphere contains nitrogen and methane, with very little water.



Titan's layered atmosphere in an image from the Cassini spacecraft.

## Triton

A moon of Neptune



Gravity



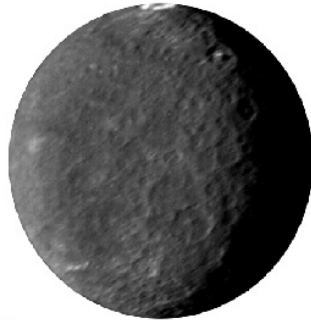
Rock



Ice

## Umbriel

A moon of Uranus



Gravity



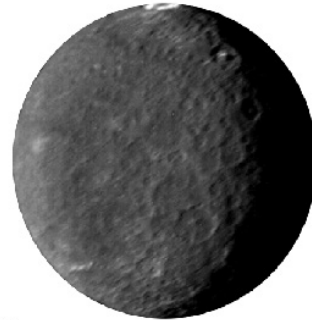
Rock



Ice

## Umbriel

A moon of Uranus



Gravity



Rock



Ice

## Uranus

The seventh planet from the Sun



Gravity



Ice



Gas

## Venus

The second planet from the Sun



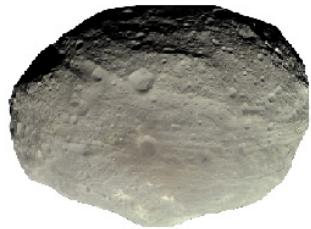
Gravity



Rock

## Vesta

A Main Belt Asteroid



Gravity

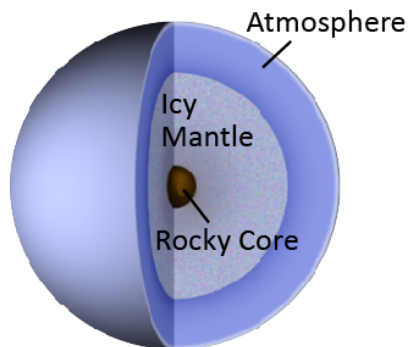


Rock

200

### SUBSURFACE

The ice giant, Uranus, is thought to have an icy mantle beneath its atmosphere.

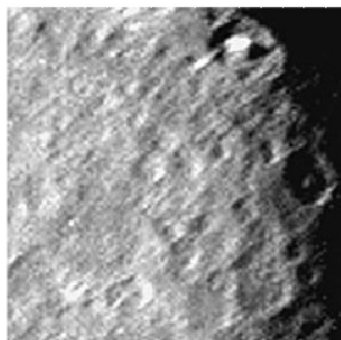


Model of the interior of Uranus.

15

### SURFACE

Umbriel's surface is made of water ice and carbon dioxide ice.

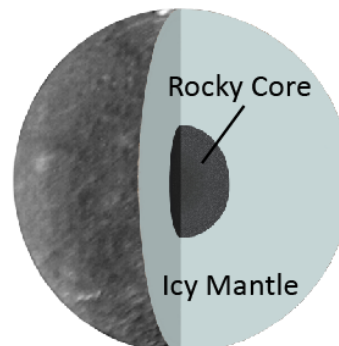


Umbriel's cratered surface imaged by the Voyager 2 spacecraft.

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### SUBSURFACE

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

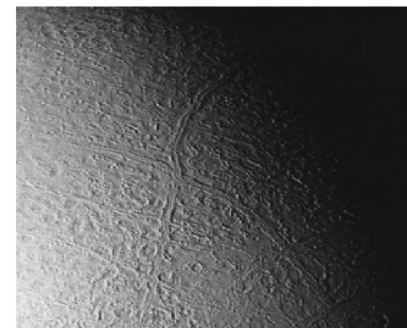


Umbriel may have a small rocky core and an icy mantle, but much is still unknown.

24

### SURFACE

Neptune's moon Triton has a mostly water ice crust.

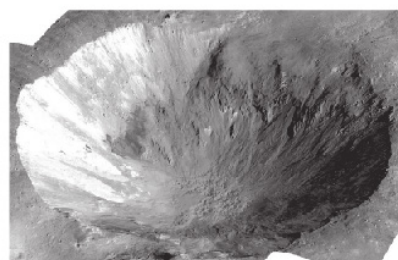


Dirty water ice on Triton, observed by Voyager 2.

0

### SURFACE

Vesta almost certainly does not have water ice today.



Gullies in a crater on Vesta, imaged by the Dawn spacecraft, likely formed by landslides.

46

### ATMOSPHERE

The atmosphere of Venus consists of 0.002% water vapor.



Venus' atmosphere observed from the Pioneer Venus orbiter.