1.A. Which letter shows the location of liquid water on the phase diagram?
B. What is the minimum temperature at which liquid water exists at 900 MPa?

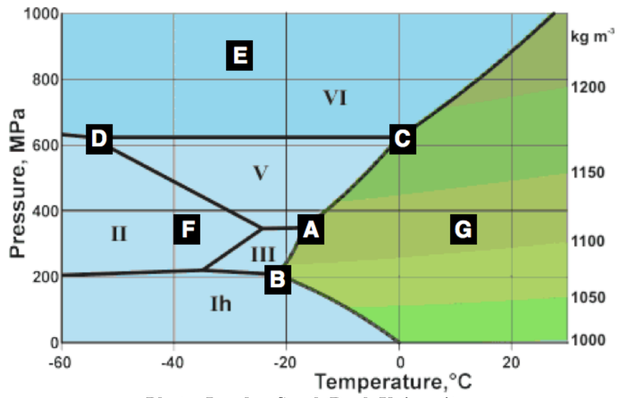
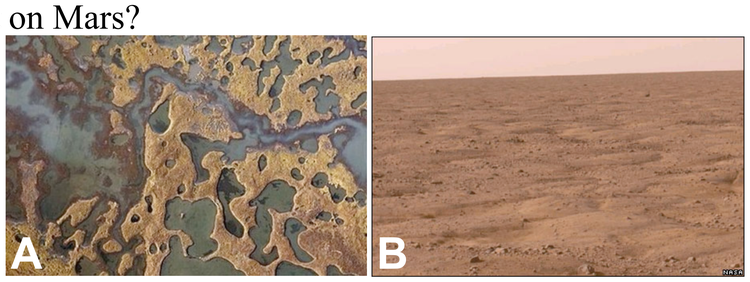


Photo: London South Bank University

2.Which icy bodies have plumes of water erupting from ther surface? What is the primary force driving these jets?

3.Which image shows permafrost on Mars? What is the proposed origin of permafrost on Mars?



4.Identify the object shown below. What was the most recent mission to image this object?

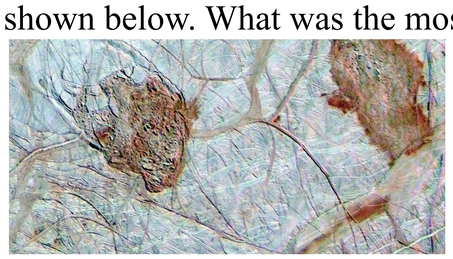


Photo: NASA

5.Match the feature of the Solar System with the appropriate region.

A.Cantaloupe Terrain	1. Mars Glacial Region
B.Kuiper Cliff	2. Europa
C.Cold Faithful	3. Asteroid Belt
D.Kirkwood Gaps	4. Enceladus
E.Ismenius Lacus quadrangle	5. Kuiper Belt
F.Conamara Chaos	6. Triton

6.The formation on the right is a surface feature of which object? What substances compose the blue-tinted features in this image? Are these substances in liquid or solid form?

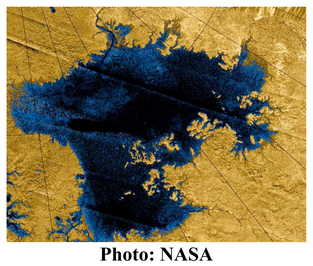


Photo: NASA

7.On which object is the image to the right found? Would this formation be found near the North Pole, South Pole, or equator? Would you expect this formation to look the same or change over the course of a year? What type of instrument was used to create this image ?

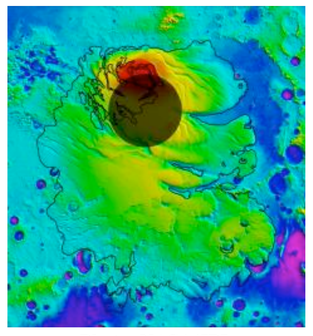
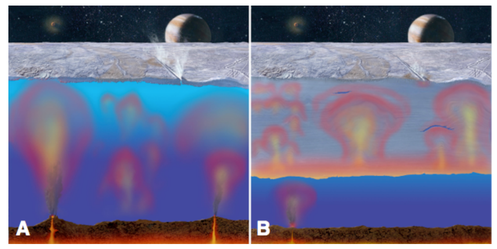
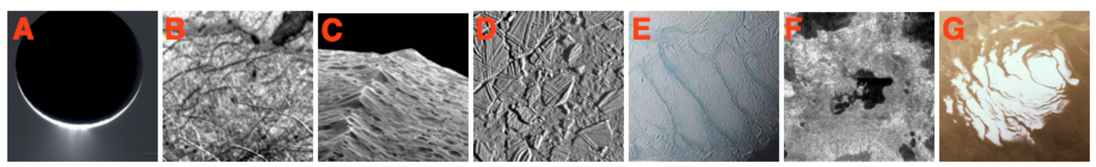


Photo: NASA/JPL

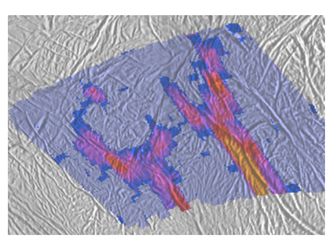
8.Images A and B model competing theories on the surface structure of which object? Explain the differences between these two theories.



9.From which object are the jets in image A spraying from? What are these jets composed of? Which other image shows an icy feature on the same body as these jets?



10.What part of the electromagnetic spectrum was the image to the right taken with? What processes cause some areas to be brighter than others?



11.What kind of object is shown in the image to the right? Draw an arrow pointing to the direction of the sun based on the image.

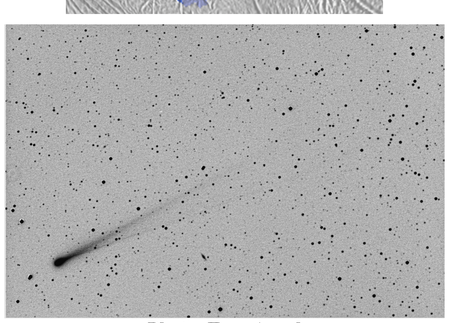
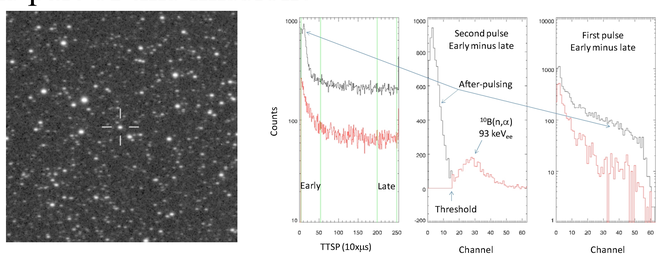


Photo: Tony Angel

12.Which of the following is not a requirement for habitability as we know it?
A. H_2O, trace amounts CH_4, NH_3, H_2
B. An atmosphere which absorbs all wavelengths of solar light.
C.Ttemperatures ranging from 258-388 K

13. Which object is shown in the image below? What mission was this image taken by? The data in the diagram to the right shows particle counts that might be acquired by what instrument that is part of this mission?



14. Order the following four Jovian satellites in order of surface age from oldest to youngest.