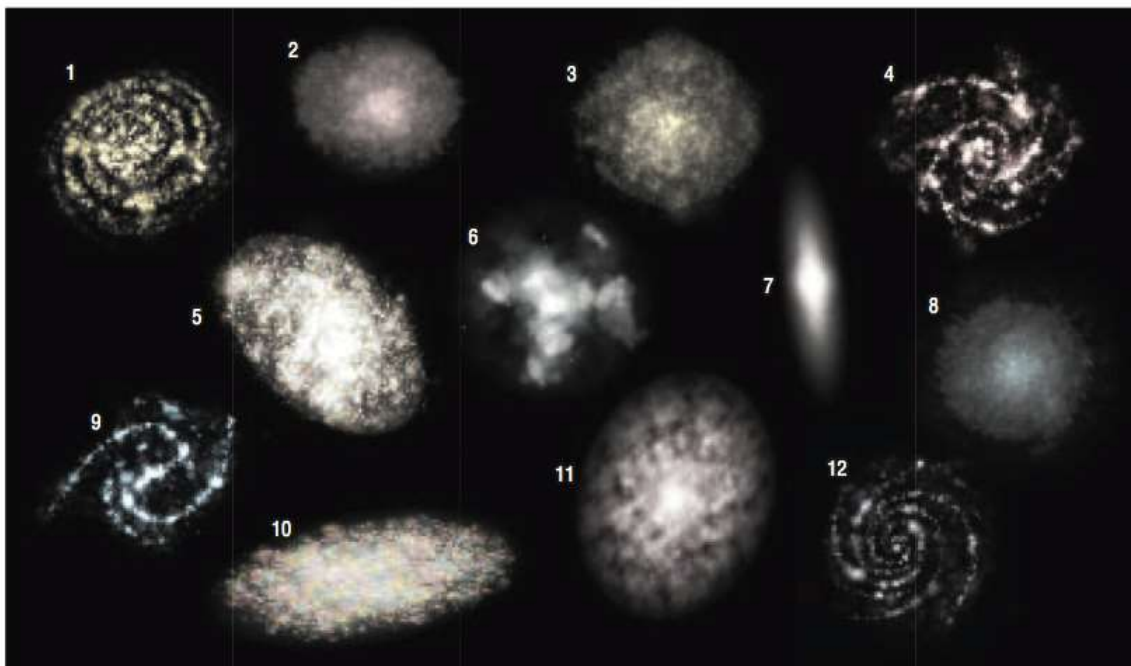


**G9 Science: Class 17 Homework**

1. Using the H-R diagram as a guide, list three physical properties of the Sun. **[3 marks]**
  
  
  
  
  
  
  
  
  
  
2. How can astronomers detect black holes if they do not give off visible light? **[2 marks]**
  
  
  
  
  
  
  
  
  
  
3. a) What is the factor that determines whether a black hole will form at the end of a star's life? **[1 mark]**
  
  
  
  
  
  
  
  
  
  
- b) Will the Sun form a black hole at the end of its life? Explain your reasoning. **[2 marks]**
  
  
  
  
  
  
  
  
  
  
4. Explain the life cycle of a star. Use key words such as supernova, neutron star, nuclear fusion, nebula, protostar, black hole, white dwarf, black dwarf, red supergiant. **[11 marks]**

5. What characteristics of our solar system are explained by the Solar Nebula Theory?  
[3 marks]

6. Label the shapes of the following galaxies: [12 marks]



1	
2	
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9	
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11	
12	

