Post-Activity Assessment Answer Key

1. Given the figure, what does the x-axis represent?
   - stress
   - strain

2. Given the same figure, what does the region A (between the origin and point B) represent?
   - ductile strength
   - load
   - Young's Modulus

3. Given the same figure, what does point D represent?
   - yield point
   - fracture point
   - load

4. Given the same figure, what does point B represent?
   - fracture point
   - Young's Modulus
   - yield point

5. Given the same figure, if the x-axis represents strain, what does the y-axis represent?
   - force
   - displacement
   - stress

6. Given the figure to the right, match the properties to the material:
   - D plastic
   - A brittle
   - B strong, but not ductile
   - C ductile

7. Force per unit area that results from a load applied to a material defines:
   - stress
   - strain
8. Which is calculated by dividing the change in length of the material by the original length of the material?  
- stress  
- strain

9. What are the units for stress?  
- N/m²  
- Nm²  
- N/m  
- Nm

10. Which of the following factors does NOT affect the stress on a wire?  
- diameter of the wire  
- original length of the wire  
- load placed on the wire  
- cross-sectional area of the wire

11. Ceramics are brittle:  
- True  
- False

12. What is the best description of a stress-strain curve for ceramics?  
- parabola opening up  
- line  
- parabola opening down

13. Ceramics are ductile:  
- True  
- False