

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Tissue Mechanics Worksheet

1. As the concentration of collagen cross-links in our tissues increases, does the tissue stiffness increase or decrease?
2. What function does collagen provide in our tissues?  
Give an example of a tissue that uses collagen to function correctly.
3. What function does elastin provide in our tissues?  
Give an example of a tissue that uses elastin to function correctly.
4. What function do proteoglycans provide in our tissues?  
Give an example of a tissue that uses proteoglycans to function correctly.
5. List three examples of what engineers might design or study that would require them to use tissue mechanics. For each example, explain *why* engineers would need to understand tissue mechanics. (If needed, use the back of this sheet.)