Urinary System Project

- 1. Create a model of a nephron: hand draw a picture with 3D parts if you would like using the various art supplies
- 2. Label your model as a **Nephron**
- 3. Include all **anatomical structures** of the nephron
 - a. Glomerulus, bowman's capsule, proximal tubule, loop of Henle, distal tubule, and collecting duct
- 4. Label the **4 processes** and where each occurs. Provide a short **description** of each
- 5. Draw in **direction of blood flow**
- 6. Label the specific **substances** moving by **passive and active transport**
- 7. Include the nitrogen wastes that are removed with the urine and 3 characteristics of urine
- 8. Picture on the side: include the **4 main organs** of the system (picture or words)
- 9. Information on the side: list function of the 2 hormones that regulate the kidneys
- 10. Information on the side: explain **2 disorders** associate with the urinary system

| Project Component | Point Possible | Points Earned |
|---|-------------------|------------------|
| Create a model | 3 | |
| Labeled model as a nephron | 5 | |
| All anatomical structures of the nephron included | 24 | |
| 4 processes included and described | 20 | |
| Direction of blood flow indicated | 3 | |
| Substances moving by cell transport included: reabsorption, secreation, and what stays in blood in filtration | 12 | |
| Nitrogen wastes in urine included along with 3 other characteristics of urine | 9 | |
| 4 main organs listed or drawn | 8 | |
| 2 hormones described | 8 | |
| 2 disorders described | 8 | |
| Total | 100 | |