Creating Joints Lab

Have someone from your group pick up your bag. One kit has the materials to construct a model of a human arm and the other kit contains materials to construct a spinal column. Your task is to assemble a working model of your assigned body part from the materials in the kit.

1. With your partner, study the materials in your kit. Then decide on a plan for assembling the model. Instructions for completing the model are purposely not here. Come up with how you think the model should be constructed. Pictures of the actual structures are below to use as a reference point. In your comp book, write out your plan and how you are going to assemble your model, complete with pictures.

2. When told to, take apart your model (even if it is not done) and put the pieces back in the bag. Return the bag to the blue table.

After you are done assembling your model, discuss the following points with your table:

- The names of the structures represented by the parts of the models
- The types of movement permitted at the joints of the model
- How the movement at the joints is produced by the action of opposing muscles

Answer the following questions in your comp book:

1. What are the steps involved in bending and extending your arm?
2. What kinds of movements does the ball-and-socket joint, which is located at the shoulder, allow you to make?
3. What kinds of movements does the spinal column permit?
4. Where else can you find a hinge joint? A ball-and-socket joint? A pivot joint?
Examples of Joints in the Human Body

- **Elbow**
- **Pivot joint**
- **Suture line**
- **Bend-and-socket joint**
- **Hip**
- **Plane joint**
- **Wrist**
- **Saddle joint**
- **Humerus**
- **Elbow**
- **Hinge joint**
- **Ulna**
- **Carpal joint**
- **Pivot joint**
- **Atlas joint**