

Modeling an Arm

Procedure

1. Work with a partner. Wear goggles. Use a push pin to make a hole in a tube that has a ball attached. Make the hole 5 cm from the end of the tube opposite the ball. Make another hole across from it.
2. On the second tube make two holes across from each other 5 cm from one end. Push a straightened paper clip through the pair of holes in each tube. Bend the ends toward the tubes.
3. **Collaborate** Have your partner hold the tubes together with the ball in the middle. Stretch a rubber band from the bent clip at the end of one tube to the bent clip on the other tube. Tape the ends of the clips against the tubes. Repeat with another rubber band on the other side. **Safety:** Wear goggles.
4. **Use Models** Label the open end of one tube *wrist* and the open end of the other tube *shoulder*. The ball is the elbow.
5. Have your partner hold the two tubes straight out. Tape one rubber band to the *wrist* tube near the ball. Tape the other rubber band to the ball.

Conclusion

Write the answers to the questions below.

1. **Observe** What happens to the rubber bands when you bend your model arm?

Name _____ Date _____

2. Compare What happens to them when you straighten your model arm?

Investigate More!

Design an Experiment Design a model of a leg. Draw diagrams to help you. Be sure your design allows the knee to bend.

