Date:

Activity Embedded Assessment

Activity instructions:

- 1. Put 30 mL of the **sodium alginate (SA) solution in each one of the petri dishes or Styrofoam cups**, using the graduated cylinder, pipette or syringe.
- 2. Add a drop or two of food coloring to the calcium chloride in **beaker or cup 1 (0.1M)**.
- 3. Put 20 mL of **0.1M** solution into one of the petri dishes or Styrofoam cups with SA from Step 1, using the graduated cylinder, pipette, or syringe.
- 4. Add a drop or two of a different food coloring to the calcium chloride in beaker or cup 2 (0.05M).
- 5. Put 20 mL of **0.05M** solution into the second petri dish or Styrofoam cup with SA from Step 1, using the graduated cylinder, pipette or syringe.
- 6. Add a drop or two of <u>another</u> food coloring to the calcium chloride in **beaker or cup 3 (0.02M)**.
- 7. Put 20 mL of **0.02M** solution into the last petri dish or Styrofoam cup with the SA from Step 1, using the graduated cylinder, pipette or syringe.
- 8. Observe the gelling process in each of the 3 petri dishes or cups and record your observations.
- 9. Wait a couple or more minutes and then notice any changes in the consistency of the hydrogels.

Instructions: Answer the following questions

- 1. What will happen to the gels if you wait a longer time?
- 2. Explain the reason for your answer above.
- 3. What will happen to the gels if you increase the concentration (molarity) of the crosslinking solution?
- 4. Explain the reason for your answer above.



