

PICTURING A COMPLEX SYSTEM: LABELING A DIAGRAM OF A SYSTEM WITH MEASURABLE QUANTITIES

Using either a systems diagram provided by your instructor or the diagram you and your group made in class, label on the diagrams the following things:

- Which aspects of the diagram correspond to the systems terms you learned earlier (source, sink, reservoir, feedback, etc.). Review your systems vocabulary to be thorough here! Write the appropriate terms directly onto the diagram.
- Where in the diagram there is a measurable quantity, and a reasonable unit for the measurable quantity. Circle the measurable quantity and write the unit next to it.
- Where there are equations (fluxes, rates, etc.) relating items in the diagram. Draw arrows between components that are linked by a flux or a rate, and write down reasonable units next to the arrow. Remember that fluxes and rates are all quantities per unit time.
- Optional: think about methods by which the various quantities you identified could be measured.

To submit your model for future use, take a picture of your diagram before leaving class and save it. Your instructor will collect and keep the posters. If feasible, your instructor will ask you to upload the photographs to an online space (course management system, etc.) so there is a permanent record of them.

Upon completion of this group activity, we will have a brief group discussion in which representatives of the groups will be asked to present examples of labeled terms, measurable quantities, and/or rates or fluxes.