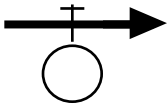


Stock/Flow Diagrams

stock- represents an accumulation, concrete or abstract, that increases or decreases over time; the "noun(s)" in the system



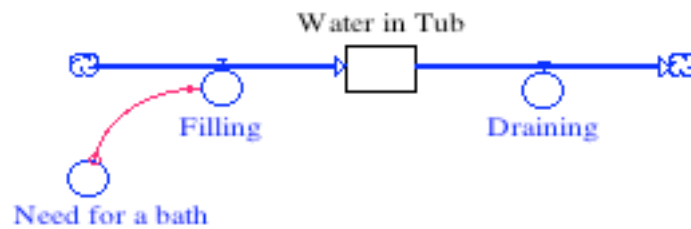
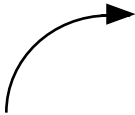
flow- represents actions or processes; transports "stuff", concrete or abstract, that directly adds to or takes away from the accumulation in a stock; can be either an inflow or an outflow; the "verb(s)" in the system



converter- holds information or relationships that affect the rate of the flows, or that affect the content of another converter



connector- indicates that changes in one element cause changes in another element; only changes a stock by going through an accompanying flow



Questions to Ask When Creating and Analyzing Stock/Flow Maps

Getting Started

1. What are the important parts within the system?
2. Which of these parts are accumulating (as stocks) over time? Start with the one to three most important stocks.
3. What are the inflows and/or outflows to the stock(s)?
4. How should the flows be labeled to reflect the rate at which they're flowing? E.g., gallons of water in per minute, people dying per year

Adding elements to the map

5. Does the part (stock, flow, or converter) increase or decrease the stock (bathtub)?
6. If a part increases the stock then does it open the faucet (the inflow) or close the drain (the outflow)?
7. If a part decreases the stock, then does it close the faucet (the inflow) or open the drain (the outflow)?
8. Does this part directly affect the flow or does it connect to another part first?
9. Look for feedback by asking, "Does the accumulation/amount in the stock affect its own or another stock's inflows, outflows, and/or converters?"

Analyzing the map

10. Where are the reinforcing and balancing loops embedded within the map?
11. Do these loops make sense? i.e. Does the relationship show how the system really works over time?
12. Is one feedback loop more influential over time than another? If yes, how?
13. How might the interaction of the parts affect how the stocks change over time?
14. Where might leverage for change be found within the system?
15. How might the change create resistance?
16. Where and how do delays affect the system?