Practicing Creating Causal Loop Diagrams
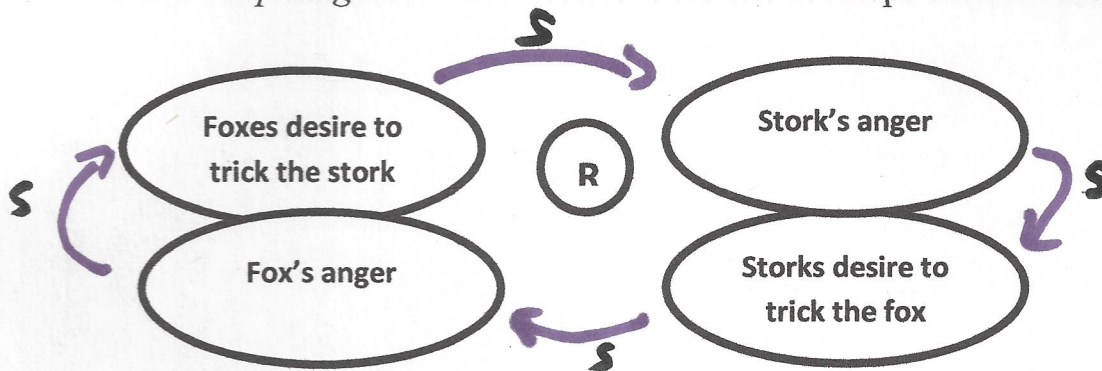
First read the following story....

The Fox one day thought of a plan to amuse himself at the expense of the Stork, at whose odd appearance he was always laughing. "You must come and dine with me today," he said to the Stork, smiling to himself at the trick he was going to play. The Stork gladly accepted the invitation and arrived in good time and with a very good appetite.

For dinner the Fox served soup. But it was set out in a very shallow dish, and all the Stork could do was to wet the very tip of his bill. Not a drop of soup could he get. But the Fox lapped it up easily, and to increase the disappointment of the Stork, made a great show of enjoyment.

The hungry Stork was much displeased at the trick, but he was a calm, even-tempered fellow and saw not good in flying into a rage. Instead, not long afterward, he invited the Fox to dine with him in turn. The Fox arrived promptly at the time that had been set, and the Stork served a fish dinner that had a very appetizing small. But it was served in a tall jar with a very narrow neck. The Stork could easily get the food with his long bill, but all the Fox could do was to lick the outside of the jar, and sniff at the delicious odor. And when the Fox lost his temper, the Stork said calmly *"do not play tricks on your neighbors unless you can stand the same treatment yourself."*

Then follow the causal loop diagram which describes the relationships between the key variables.

Your homework is to create causal loop diagrams that describe the changes in the key variables for the two stories on the back of this page using the following method:

1. Read the story slowly for meaning
2. Read it out loud, listening for the variables (what goes up, what goes down?)
3. Record the key variables and notice if they are increasing or decreasing
4. Put the key variables in bubbles and notice the connections (S or O)
5. Complete your causal loop diagram with arrows between the bubbles
6. Read it out loud ("when x goes up, y goes up" etc.)
7. It if doesn't make sense, change it!

The Lion and the Mouse

A Lion lay asleep in the forest, His great head resting on his paws. A timid little Mouse came upon him unexpectedly, and in her fright and haste to get away, ran across the Lion's nose. Roused from his nap, the Lion laid his huge paw angrily on the tiny creature to kill her.

"Spare me!" begged the poor Mouse.   "Please let me go and some day I will surely repay you." ⋯   .   .   .

The Lion was much amused to think that a Mouse could ever help him. But he was generous and finally let the Mouse go.

Some days later, while stalking his prey in the forest, the Lion was caught in the coils of a hunter's net. Unable to free himself, he filled the forest with his angry roaring. The Mouse knew the voice and quickly found the Lion struggling in the net. Running to one of the great ropes that bound him, she gnawed it until it parted, and soon the Lion was free.

"You laughed when I said I would repay you,   said the Mouse.   *"Now you see that even a Mouse can help a Lion."*

Rani's Rice

At the beginning of the story, we are introduced to the raja as someone who believed he "was wise and fair, as a raja should be." Yet he requires   villagers in his province to turn over almost all their rice for safe storage, leaving them only enough to get by. When a year of drought arrives, famine and hunger ensue. The villagers beg the raja to release some of the rice from the royal store but he refuses. As his people become more and more famished, the raja decides to have a feast for him and his court. As a parade of elephants returns from the royal storehouses loaded down with sacks of rice, Rani, a clever village girl, walks behind them, collecting falling rice in her skirt. She is caught by the royal guards, but when they accuse her of stealing she tells them she is collecting the rice to return to the raja. The raja, striving to be wise and fair, decides to reward her for returning his rice. He tells Rani: "*Ask me for anything and you shall have it."*

To the raja's great surprise, Rani asks for just one grain of rice. When the raja says that is not enough of a reward, she acquiesces and asks that he give her one grain of rice on the first day. Then each day, for the following thirty days, he is to give her double the rice he gave her the day before. The raja considers this to be a modest request and readily agrees. By the end of the thirty days, Rani has more than a billion grains of rice and the raja has no more to give. The raja, having learned an important lesson both about math and about fairness, promises to only take as much rice as he needs from now on.