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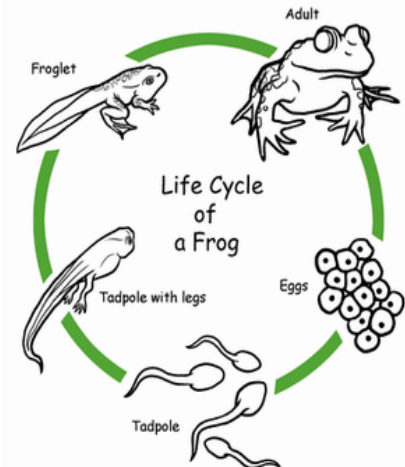
TYPES OF SYSTEMS NOTES

OPEN LOOP SYSTEMS – In open loop systems, the outputs of the system leave the system and don't come back.

Ex. food chains, life cycles

In the life cycle of the frog to the right, the tadpoles will grow into frogs, but they will not return to become tadpoles again.

Making lemonade would also be an open loop system. Once the lemons are squeezed, you can't get the lemons back.



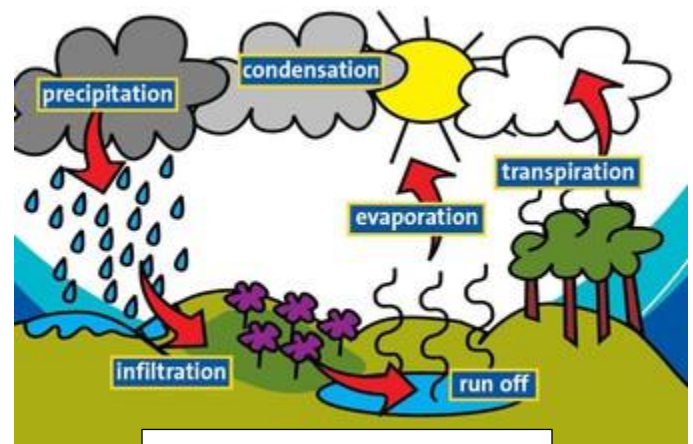
OPEN LOOP SYSTEM

CLOSED LOOP SYSTEMS – In closed loop systems, the outputs of the system return to become inputs of the system again.

Ex. water cycle, nutrient cycles

In the water cycle, the water never really leaves the system, it continues to be used over and over.

The carbon cycle and nitrogen cycles in nature are also closed loop. The carbon and nitrogen atoms just keep getting used over and over.



CLOSED LOOP SYSTEM

Natural systems – only nature is involved

Combination systems – both people and nature are involved

Man-made – people make the system work

Ex. water cycle, a life cycle

Ex. farming, raising a pet

Ex. health care, building a bicycle