How the Earth System is Connected

<u>Reservoirs or spheres</u> – realms of matter that reside on Earth



Flux – process that moves matter from one reservoir to another



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<u>Feedback loop</u> – change in one aspect of a system will eventually modify what was originally changed.



Example:

Initial change: Earth's temperature increases

Secondary change: Polar ice caps melt

<u>Tertiary change</u>: Earth becomes less reflective and absorbs more heat

<u>Feedback loop</u> – change in one aspect of a system will eventually modify what was originally changed.

Another way to look at it as a true "loop":



This is a "positive feedback loop"...

meaning initial change is enhanced or increase in temperature eventually enhances (increases) temperature.



Negative feedback loops work like thermostats.

Can you complete this negative feedback loop?



Initial temperature increase results in temperature decrease via cloud coverage.

