



Water and EcoFluxx  
A Lesson Plan for Grades 7-12  
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This lesson works well in the middle of any science or social studies unit focusing on the importance of water in a community.

Preparatory Set: As a class, view the movie found at this website:  
[http://www.pbs.org/frontlineworld/rough/2005/10/south\\_africa\\_th.html](http://www.pbs.org/frontlineworld/rough/2005/10/south_africa_th.html)

Discussion: Discuss the various aspects of the Play Pump

- Kids get to do what they normally do: play.
- Water is pumped from deep aquifers (define aquifers and how they are connected to the environment)
- This water is much cleaner than any groundwater or well water
- The benefits to the community are startlingly large (discuss the time and energy that had been going into getting water for a family – and how the change in water delivery and quality can change their lives)

Activity: Play EcoFluxx as per normal rules for 10 minutes. Next, to model the scarcity of water as shown in the video, have the students take the Water Keeper out of the deck and have them try to play the game now. How many cards would this affect?

Goals with Water as a component of the card:

- Rainbows
- Clouds
- Mud

Animals that depend on Water

- Fish (no water, no Fish) - and therefore any Goals that require Fish would be out.
- Frogs (no water, no Frogs... no goals that require Frogs)
- Worms (require moisture for breathing thru their skin.... no water, no Worms, etc...)
- Tadpoles....

Processes that depend on Water

- Photosynthesis ( $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6$ )
- Ferns (they grow in moist places because of their reproduction requirements....)
- Composting (can it even happen without moisture?)

Assignment: Journal or discuss your reactions to playing EcoFluxx without Water. How would your life change if water was scarce in your environment? What would happen if any other part of the environment was scarce – either for the game or for real life? How else could you model such a scarcity in a game setting? How would you change the game of EcoFluxx to be able to model such things?