Name:_____Date:_____Period:_____

While you complete each activity, please follow along with this lab sheet.

PUMPING THE SUPPLY: *IS GROUNDWATER A RENEWABLE RESOURCE?*

GROUNDWATER FOUNDATION
Protect. Connect. Inspire.

1. Define well:_____
2. Define well screen:_____
   _____
3. Explain why a well screen is necessary

_____
_____
_____
_____

4. List three things that should be considered when selecting a location for a well or well sitting
   a.
   b.
   c.

5. Compare and contrast withdrawal and drawdown

6. Explain the complications that may result from mining an aquifer.

7. Discuss the value of pumping a well at its safe yield and infer what will happen if you pump over the safe yield.

Extension

A. Rebuild the aquifer and include a confining layer. Do this by repeating steps 1-9 of the procedure. How does a confined aquifer respond to drawdown and recharge?

B. Demonstrate the effects of pumping wells at various depths by moving the pump tube. Sketch pictures of your aquifer

Water level of Aquifer **before** changing pump depth	Water level of Aquifer **after** changing pump depth

C. Research and demonstrate factors affecting well location due to water quality concerns.

D. Rebuild the aquifer with sand or a mixture of sand and gravel. Does the material the aquifer is made of affect the recharge and pumping rates?

E. Create and explain a cone of depression. *TIP: This is best demonstrated in sand.* Sketch an image of your cone of depression and explain what it is