overarching QUEStion:

*Can your students develop and use a model to deepen their understanding of the groundwater system enough to demonstrate ways to protect and conserve our groundwater?*

Concept

Groundwater moves through spaces in earth materials by the force of gravity, is connected to surface water, and part of the water cycle. We care about groundwater because we use it.

activate

Students build and work with a model of the groundwater system to demonstrate how water moves underground and to observe the impacts of over pumping an aquifer. Building the model helps students to clearly identify the parts of the system. By using the model they directly observe the relationships between those parts.

check

Students demonstrate that groundwater comes from precipitation percolating into the ground by gravity, flows through spaces between earth materials, and connects to surface water where evaporation occurs within the water cycle.

Objectives

* Identify the parts of the groundwater system by developing a model.
* Observe the relationships between the parts and other systems by using the model.
* Understand that groundwater is a finite resource that must be conserved.

resources

* [***Build Your Own GW Model Lesson Outline.docx***](https://arizona.app.box.com/file/783550294014?s=ntm650vy2b3zmhlxp370mz8wqe1bkm95)
* ***[Build Your Own GW Model Presentation.pptx](https://arizona.app.box.com/file/783550265294?s=vm7yg8rw76pzgg5uicpxmqp7dcb2tfx2)***
* [***Build Your Own Groundwater Model Overview.docx***](https://arizona.app.box.com/file/783548648559?s=62jwasp1g45qk22litlp8ga9uafj1dzx)
* Additional Materials
  + Video:[***Build Your Own Aquifer – Part 1***](https://www.youtube.com/watch?v=Q7YPH268X9g&list=PLl5fwrPBLdwpiYhhUWR4zJqot5SM_ksxD&index=13)
  + Video: [***Build Your Own Aquifer – Part 2***](https://www.youtube.com/watch?v=Q7YPH268X9g&list=PLl5fwrPBLdwpiYhhUWR4zJqot5SM_ksxD&index=13)

Lesson Instructions

Use the ***Build Your******Own GW Model*** PowerPoint presentation, with embedded notes, to lead the lesson. The PowerPoint includes all the instructions for building and working with the model. The ***Build Your Own Groundwater Overview*** document provides some general information about the presentation.