
Becoming a Wizard of "Is"

Parents and Teachers know kids are about as hands-on and inquiry-based as you can get.

They quickly hone-in on actual observations of what IS; and often look glassy-eyed when their elders wax on, and on, and on... about theories that suggest WHY.

Funny. You really can get pretty far in this world without the WHY. After all, the sun came up even when the earth was 'flat!' You **cannot** get far without the IS.

Listen to the Children, and learn something... Children are the best observers until they are twelve. They point out the naked emperors! For those older than 12, textbook and other conventional wisdom gets in the way of observation -- and discovery. Discovery is noticing what does not fit what your teacher told you!

So if you are older than 12, ignore your outward adult, and listen to your inner juvenile.

Watch Videos ... The Particular Concepts Physics videos don't have any explanations. They FORCE you to observe. The music helps to open up that part of the brain that makes connections to the IS!

Take/draw Pictures as well as Written Notes ... At the end of each real-life experience doing 'science-y' stuff, fill blank-lined and blank-gridded pages. Attached are a few, so freely copy them! Use both the writing and visual parts of your brain to record your (and your students') observations. If you punch three holes in each page, you can put them in a binder, so your inner adult can keep the whole wonderful mess of your and your students thoughts under control!

Be Unconventionally Practical... There is rarely just one way to do, or observe, or achieve anything! You can fill out the worksheets out conventionally if you want, but make sure you challenge yourself and your students to fill them out differently (i.e. pictures not words). Use that part of the brain that makes connections to the IS.

For Example... In the early 1950's, my Dad and other Physics Doctoral candidates had to compare the areas of thousands of line/curve graphs. Today, you can plug the data into computers or calculus calculators. They did not have those back then... Today, you can still do calculus by handwritten formulas, which takes a long time; but, my Dad and his buddies did something different.

What did my Dad and his buddies do?

They drew all the graphs on the same weight paper, using the same 'X' / 'Y' axes. Then, they used scissors to cut out the area under the curves of the graphs and *weighed* the various areas against a known area (a right triangle). Now they had the proportion, so they did simple algebra to compare the unknown areas with the known. They found the areas they needed without a calculator or calculus.

That's one way a Wizard of IS (who survived through all the adult WHYS) gets things done...!



