

## Pendulum Snake Lesson

At the museum we often get asked, "where do exhibit ideas come from?"

No one asks, "where do the science lessons behind exhibits come from?" Here is a story of how one lesson was created.

I was inspired by a visitor question on Monday, April 1, to create a new lesson at Pendulum Snake.

I was taking around a tour of foreign visitors when we came upon pendulum snake. As it was in motion, a man behind me said to his young companion, "this exhibit shows common factors."

I had never used the exhibit to teach common factors, but with years of experience at "Iron Science Teacher," I created a lesson plan in about 4 seconds.

So with my visitors watching, I pointed out that pendulums numbered 15 and 16 had no common factors other than 1 and so they repeated their pattern once every 30 seconds.

Then having never done it before I started pendulums 16 and 18, as they swung I said "what is there common factor?" (2) I said watch and you'll see that they come together twice in 30 seconds.

And that's exactly what they did.

Then we went on to do pendulums 15 and 18 with a common factor of 3 which repeated 3 times, and then we investigated pendulums 16 and 20 and finally 15 and 20.

Now TI will use this lesson with teachers and it will develop with each repetition as each participant notices something new or adds some little bit to it.

After it was all over, I asked the original observer if he was a mathematician, "No" he replied, "but I like mathematics."

Paul Doherty.