Become a Jr. Scientist!

Thank you for visiting the Soudan Underground Laboratory. This packet has fun activities just for kids. You can even do research projects just like the scientists you saw in our lab!

As you learned on your tour, this lab is the site of physics experiments including MINOS (Main Injector Neutrino Oscillation Search), CDMSII (Cryogenic Dark Matter Search), and the Low Background Counting Facility. All of the equipment you saw underground had to be brought down there by the elevator shafts – the same way you came down! Physicists from all over the world work here.

The MINOS project is investigating fundamental particles called neutrinos. These particles have no charge and very little mass, so they are hard to catch! The detector underground in Soudan will try to see some neutrinos in a controlled environment so that we can learn more about them. The neutrinos that we are watching are produced at Fermi National Accelerator Laboratory near Chicago, IL. Neutrinos are produced naturally in stars and some neutrinos are still around from the origin of our universe! It is important for us to find out about neutrinos because they will tell us more about how our universe works.

Check the Lab website <u>www.sudan.umn.edu</u> for more information and to see a live picture of the neutrinos coming in!

This packet is full of activities and games for you to try. You will check out new ideas and find exciting answers - This is what science is all about!

Have Fun!