

What is Spaceport Indiana?

Spaceport Indiana is a launch facility for the commercial space industry. Private companies are now doing a bulk of low earth orbit (LEO) activities that were once completed by NASA. As part of that work, we have a vested interest in the community and a future workforce. There are 22 Spaceports around the world in various states of construction. All of these will need a qualified workforce and like Spaceport Indiana have created educational outreach components that help deliver STEM and PBL curriculum.

What are some ways that I can interact with Spaceport Indiana as an Educator?

There are a number of ways that you can get involved personally or with your classroom. We offer workshops for teachers and students that engage the participants in lots of science and math projects. Topics include Chemistry, earth science, rocketry, geology, atmospheric studies, geometry, physics just to name a few. We have in-class projects that our Mission Specialists guide students through fun activities. We offer summer workshops for STEM and PBL. INSpace Camps are four day camps in the summer and you can volunteer and learn valuable information or encourage your students to attend.

Would someone from Spaceport Indiana visit my classroom?

Yes! We love to visit the classroom and talk about what we do, the jobs that will be available, and the educational requirements that will get a student on the right path.

Transportation costs are high; many times we can't travel to Spaceport activities. Are we just out of luck?

We have made many of our projects portable, including balloon launches. We have done a number of launches from football fields and tracks. While there are costs to bring projects to the schools, we help minimize those by coming to you...saving you a lot of money.

What is a high altitude balloon platform (BalloonSat)?

High altitude balloons (meteorological balloons) are used by NOAA, NWS and NASA to do a variety of tasks. We use them as platforms for science study. They are a low cost way to create experiments that can test the Ozone, microgravity, chemical reactions in a space environment, G forces and much more. Students can create payloads, launch them and then validate the results once it returns to Earth. BalloonSats reach altitudes over 80,000 to 115,000 feet. They use Helium (He) as a lifting gas and can carry up to 25 pounds of experimental payload.

I've never done a balloon launch, how can Spaceport Indiana help?

We are with you through the entire process. We come to your class, talk with students about potential experiments, explain the space environment and how to protect their payloads from cold, radiation, G forces, etc. Then we give you ideas for the launch. Once you've had a few days with your students creating a payload, we come back help you do your final checklist and bring all the equipment and we launch!

Does it matter what grade I teach if I want to do a balloon launch?

We encourage balloon launches in grades 7-12. This seems to be a good age group to get the most out of the experience. While we have done earlier grade levels, we become much more limited with payloads. Students ages 12-18 typically have a level of understanding that generally compliments the subject matter.

What kinds of classroom projects can we do with Spaceport Indiana?

We can customize a project based on what you're teaching in class at the time. If Newton's Laws are being discussed, we can bring rockets to build, launch and collect data. We can help students see the effects of opposite forces, thrust, and much more. Reading about it is one thing doing it through a PBL process is entirely different! We also have pre-designed experiments that are fun for all ages. We can study the planets, materials for space suits, and food....the sky's the limit!

Are there any programs for after school?

You bet! We offer a number of fun activities that can be done after school. We have a program called SpaceLab that gives students a chance to test theories, create their own experiments, and gain knowledge about any number of topics.

Our school is going to a balanced calendar and will have longer breaks for fall and spring, do you offer anything to help with that break time?

Yes, we are creating programs to fill those new breaks. This will help parents with managing supervision, and it also helps keep the students' minds active and thinking about math and science. Depending on your school's calendar, we are trying to serve as many areas as possible. Contact us with dates and we can help. The cost of the programs are often comparable with daycare costs....but the kids are learning something every day!

Are there Fees for Projects through Spaceport Indiana?

Yes, there are fees, but they tend to be pretty low. In most cases costs are \$7.00-\$10.00 per student, except for BalloonSats which are a package price.

Are there any safety concerns with launches or experiments?

Generally speaking, we use equipment that is very safe. We do use Helium Gas (He) which is in a pressure cylinder. Our Mission specialists operate those tanks, which is the most complex task. Students are working with safe components. We always emphasize safety, but you'll find our equipment is fun and safe! The balloons are latex...so if someone has a latex allergy we need to know.