

Physics is Fun

This program allows students to experience why we truly believe that *Physics is Fun!* The show is based on Sir Isaac Newton and his laws of physics as well as the inventions of Robert VandeGraff and Nikola Tesla and will open your student's eyes to the fascinating world of physics and how it governs the way everything around us moves!

The first category discusses sound; what it is, how we hear, why we hear, and the difference between loud and soft sounds. Several demonstrations are used in this segment to demonstrate these principles.

Next, the inventions of Robert VandeGraff and Nikola Tesla are explored in detail. These gentlemen pioneered experiments in static electricity and are responsible for many modern pieces of electronics that we have today, yet very few people have ever heard of them.

The next segment is dedicated to gyros and gyroscopic stability. Large working models of gyros are introduced to the audience. Student and teacher participation is used to the laughter of the viewing audience.

The final segment deals with Newton's third law, the law of action and reaction. In this segment the performer introduces a pulse ram jet engine. He explains how Newton's third law applies to jet engines. This segment is very exciting to the students as the jet engine generates a considerably high level of sound.

The 45 minute presentations are tailored for each age group (K-9) and will provide appropriate academic content. The program comes complete with its own visual aids, making this show the type that all audiences can appreciate. All demonstrations are visible in even the largest of auditoriums. *Physics is Fun* is also available in an all-day format with hands-on workshops.



NEW! EXPANDED DAY WORKSHOPS

Mobile Ed is happy to announce a new and exciting addition to our science program, PHYSICS IS FUN! We have always offered workshops with this program, but now we are able to invite much larger numbers of students to participate, and thus create an event the whole school will remember.

With ten or more newly designed work stations, featuring a dazzling array of cool new activities, we will now be able to accommodate up to 60 students per workshop, and offer up to seven workshops a day. This means that most or even all of the school may now be able to join in the fun.

Our workshops will feature activities dealing with displacement, transference of energy, friction, inertia, magnetic fields, ultraviolet light, air pressure and other areas of scientific interest. See how we fly a hot air balloon, or create heat from motion. Marvel as we learn how to "float" a bowling ball in water!

To accomplish this we will need the school to provide a group of 15 to 20 volunteers for the day. They may be drawn from parents, grandparents or retirees. The volunteers will be trained that morning before school begins, and then given the "job" of playing with the students at each workstation as the day progresses.

We are certain the whole school will have a great day with PHYSICS IS FUN!

For further information please call toll free:

1 - 8 0 0 - 4 3 3 - 7 4 5 9

26018 West Seven Mile Redford, MI 48240 • www.mobileedproductions.com

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PHYSICS IS FUN

Assembly Information

Age Group: Kindergarten through 9th Grade

Length: 40-45 minutes

Size: The area needed is limited only by the size of the facility. Average audience size is 250.

Presentation Area: A stage or 8' x 25' area. One AC electrical outlet. Access to water for clean-up.

Assistance: Custodial or adult assistance for unloading, set-up, tear-down and loading.
Two 6'-8' banquet style tables.

Set-up/Take-down Time: Set-up: 45 minutes. Take-down: 30 minutes.

- Content:**
- Sound and how we hear
 - Isaac Newton's laws of physics - gravity, inertia, action/reaction
 - Robert VandeGraff and his generator
 - Nikola Tesla
 - The physics behind a jet engine

Hands-on Workshop Information

OPTION 1

Length: 45 minutes

Size: Maximum 32 students assisted by a teacher.

Presentation Area: A classroom setting is recommended. Allow 45 minutes to move to the classroom to set up the workshops.

Assistance: A teacher or staff member. 5 tables for the work stations.

Content: Students learn about the physics of a modern toy, capsela. Students will build several different mechanical devices such as cable car, robot, wind driven car, tread driven tank, crane, and vacuum cleaner to name just a few. They all have a physical reason behind its ability to function.

OPTION 2

Length: 30-45 minutes

Size: Maximum 60 students
Maximum 7 workshops

Presentation Area: Gym or multi-purpose room

Assistance: 15-20 adult volunteers and at least ten tables.

Content: Activities dealing with displacement, transference of energy, friction, inertia, magnetic fields, ultraviolet light, air pressure and other areas of specific interest. See how we fly a hot air balloon, or create heat from motion. Marvel as we learn how to "float" a bowling ball in water!

Our curriculum based programs are designed to meet or exceed all testing and state requirements.

For further information please call toll free: 1-800-433-7459

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