



ASSEMBLIES AND WORKSHOPS FOR CHILDREN

Assembly Description & Workshop Choices

Featured Assembly Presentations

If David is scheduled to see each group of students once, he will give one of his two Featured Assembly Presentations, tailored to the audience. You do not need to choose a presentation or follow-up workshop.

Math + Literature = Learning + Fun!

Grades K-6 (customized to the age of the audience), 45-60 minutes

With a wealth of visuals, David leaves children laughing, learning and howling with delight—about math, science, books and how they go together. He shows students how math is everywhere and how it can be both enjoyable and useful. He uses his storytelling talents along with preposterous props to dramatize some of the themes in his books. Drawing on tales of his childhood, he shows how his early curiosity inspired the nonfiction books he now writes. Children and teachers are thrilled by his unique approach that makes math more exciting and relevant than any of them thought possible.

An Author's Love of Math, Science and Books

Grades 6-8, 45-60 minutes

With props, photos and stories of his youth, the author of over 50 books talks to middle school students about his lifelong love of mathematics and science. He encourages students to honor their sense of wonder as he draws a direct link between his own childhood curiosities and his award-winning books. With props and other visuals, he inspires awe and laughter as he develops several age-appropriate mathematical and scientific concepts found in his books. If time allows, he shares stories and photos from his career as a science journalist, again illuminating the connection between science, math and the written word.

Follow-up Workshops for Elementary (Lower School) Grades

If the presentation schedule at your school allows David to see some groups of students twice, you may choose a workshop to follow the assembly program:

Think Big: Workshop on Big Numbers

Grades 4-5, 45-60 minutes

After the featured assembly, your students will be ready to tackle some BIG problems. In this mind-stretching, interactive session, David presents exponentially more sophisticated mathematical challenges, tailored to the academic level of the group.

Nature's Numbers: The Math-Science Connection

Grades 1-5, 45-60 min.

While projecting magnificent photographs, David gives us a better appreciation of nature by illustrating (and acting out) some of the many ways that mathematics helps us appreciate and better understand the natural world. The level of math and science is tailored to the age of the group.

The Storycrafter's Art

Grades K-5, 30-60 minutes

Where do the ideas for stories come from? How does an author make a story come alive? What makes writing dramatic and vivid? These and other questions are explored in this writing or storytelling session. (For younger children, the workshop will be mostly storytelling.)

Family Program

Numbers, Numbers, Everywhere!

For School Age Children and their Parents (45-60 minutes)

David shows how numbers enrich us in many areas of everyday family life. He treats families to delightful storytelling, and talks about the connection between stories and numbers. In a grand finale, he provides a dramatic visual encore to the featured assembly that students have seen during the school day. Children (and parents) will long remember the difference between a million, a billion and a trillion.

Follow-up Workshops for Middle and High School Grades

Nature's Numbers (middle/high school version)

Grades 6-12, 45-60 min.

The connection between mathematics and the natural world is manifold. This workshop will explore some concepts appropriate to middle school grades including proportionality, area of polygons, surface to volume ratio, the Fibonacci series and the Golden Ratio (and how they are found in nature), cell division as an exponential function, algebraic expressions of population growth and more. Although the program includes mathematics, it is more than a math lesson: the main point is to show how the beauty of nature and mathematics intersect. The talk is well-illustrated with striking images.

Think Big, middle/high school version

Grades 6-12, 45-60 min.

How can astrophysicists say that the estimated number of atoms in the universe is "only" 10^{82} ? Students find it hard to believe that the number popularly known as "googol" (10^{100}) makes the number of atoms look small. Using that statement as a starting point, we begin an exploration of exponential growth and use it as the basis for a better understanding of our decimal number system. Population growth is also considered, using algebraic expressions to understand dramatic examples. If time allows, working the other direction (from "big" to "small") David demonstrates in a unique way why $n^0=1$, a concept children have a hard time understanding.

Nonfiction Writing: Tips to Make it Come Alive

Grades 6-12, 45-60 min.

Informational writing does not have to be dry writing! Drawing upon 20 years of experience as a journalist for *Smithsonian* magazine, author David Schwartz shows students how to make nonfiction writing come alive. Writers can use detail, surprise, humor and suspense to hold readers in thrall; in their research they should dig deep for fascinating facts; in their presentation of the facts, they must "show, not tell." David's nuggets of advice to aspiring authors include "read like a writer and write for the reader," and he uses a dozen lively examples to show what that means.