



TILTED PLANE.

phaeno

da staunst du.



PUT the ball on the highest point of the inclined plane.

PUSH the yellow start button to start the ball and the stopwatches.

SHIFT the stopwatches on the inclined plane and repeat the experiment. Did you manage to arrange the stopwatches so that they show same time intervalls, e.g. 20, 40, 60,... hundredth of a second?

The eight stopwatches measure the time from the start to the passing of the ball. They measure the time in one hundredth of a second (1/100 second).

The ball gets faster. When the stopwatches show the same time intervals the distances between the watches become longer.

In twice the time the ball does not run twice the distance, but four times. In triple time it is even nine times the distance.

Galileo Gallilei experimented with similar inclined planes about 400 years ago. Instead of chronometers he used little bells. He could show that the balls are accelerated uniformly and he could prove the law that the travelled distance increases quadratically with time.

