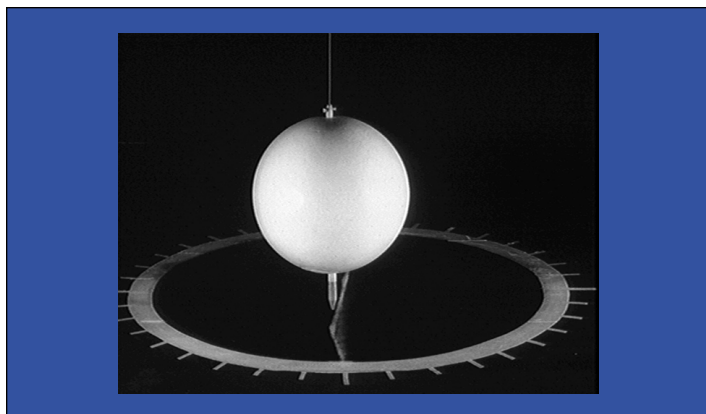


# Frames of Reference

**Ztek<sup>®</sup> Co.**  
**PHYSICS**views™



This DVD version of a classic presentation of frames of reference provides easy access to each segment and includes demonstrations and explanations that your students will both enjoy and understand.

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Frames of Reference was produced in 1960 by the Physical Science Study Committee with support from the National Science Foundation, The Alford P. Sloan Foundation and the Ford Foundation. The film was published by Educational Services Incorporated for a period. In 1998 Ztek Co., along with the American Association of Physics Teachers, produced a videodisc from the film. In 2002 Ztek Co. converted the videodisc to DVD.

The Frames of Reference video demonstrates and explains the concepts of inertial and accelerated frames of reference along with fictitious forces. The video is divided into ten chapters with an accompanying Teacher's Guide that includes integrated lessons and activities for each chapter. There are ten lessons for each of three levels – physical science, high school and college. The video may also be played continuously in its entirety. The frames per second rate for the original film was 24 frames per second, except for the slow-motion segments which were filmed at 120 frames per second. The DVD playback rate is 30 frames per second.

The DVD includes a barcode directory for easy access to each chapter when using a Pioneer DVD-V7200/7400 player. The Teacher's Guide is on a CD-ROM in an Adobe Acrobat Portable Document Format (PDF). It may be accessed with a Macintosh or Windows computer. The lessons may be printed, copied to a disk or read directly from the CD-ROM.

## Contents: (min:sec)

1. Different Reference Frames (02:42)
2. One-, Two- and Three-Dimensions (00:41)
3. Projectile Motion (02:32)
4. Relative Motion (02:13)
5. Preferred Reference Frame (00:53)
6. Addition of Velocities (03:26)
7. Accelerated Motion (03:38)
8. Circular Motion (04:55)
9. Earth's Motion (01:51)
10. Foucault Pendulum (02:27)
11. Play Entire Video (27:20)

**Grade Level:** 7+

**Media:** DVD-Video, CD-ROM

