

Contents of Vibrations and Waves Folder

There are 16 folders inside of the Vibrations and Waves folder. Each folder contains a PowerPoint slide deck. The slide deck can be used as a PowerPoint or be imported into Google Slides. The folder also contains a PDF and Microsoft Word version of the Lesson Notes. Finally, there is an **Images** folder inside each of the folders. The images folder contains animations (usually .gif or .mp4), movies (usually .mp4), and graphics (usually .png) used in the slide deck. Often times there is a Microsoft Word document that contains the source of one or more line graphics. The availability of the MS Word document will allow teachers to manipulate any of the graphics as desired. All the images included in the PowerPoint slide deck are not necessarily saved in the Images folder. They can be edited within PowerPoint or Google Slides (if needed).

	PowerPoint Topic	File Name
1.	Vibrational Motion	VibrationalMotion
2.	Properties of Periodic Motion	PeriodicMotion
3.	Pendulum Motion	PendulumMotion
4.	Mass on a Spring	HarmonicMotion
5.	What is a Wave?	WaveNature
6.	Categories of Waves	WaveCategories
7.	Anatomy of a Wave	WaveAnatomy
8.	Frequency versus Period	FrequencyPeriod
9.	Speed of a Wave	WaveSpeed
10.	Frequency-Wavelength-Speed Relationship	WaveEquation
11.	Boundary Behavior of Waves	BoundaryBehavior
12.	Wave Interference	Interference
13.	Doppler Effect	DopplerEffect
14.	What is a Standing Wave?	StandingWaves
15.	Harmonics and Standing Wave Patterns	Harmonics
16.	Mathematics of Standing Waves	StandingWaveMath

In addition to the PowerPoints and Lesson Notes, the Vibrations and Waves folder contains several animations and videos (and also graphics). You will find the following animations and videos included in the Vibrations and Waves folder:

Folder	File Name	Format	Duration
VibrationalMotion	ParticleWaveMovie	.mp4, .gif	0:29
	PendulumMotion	.gif	0:42
	DampedPendulum	.gif	0:30
	PendulumMotion	.png	0:08
	BobbleheadForce	.gif, .png	0:40
PeriodicMotion	MeaningOfPeriod	.gif, .png	0:17
PendulumMotion	PendulumEnergy	.mp4, .gif	0:24

WaveNature*	StadiumWave	.gif	0:05
	PoorRichard	.gif	0:15
	ParticleWave	.mp4, .gif	0:14
	SlinkyPulseHorizontal	.mp4, .gif	0:08
	TransverseWave	.mp4, .gif	0:14
WaveCategories*	ParticleWave	.mp4, .gif	0:14
	TransverseWave	.mp4, .gif	0:16
	LongitudinalWave	.mp4, .gif	0:16
	SurfaceWave	.mp4, .gif	0:32
WaveAnatomy*	AmplitudeTransverse	.mp4, .gif	0:24
	AmplitudeLongitudinal	.mp4, .gif	0:26
	CountingHalfWaves	.mp4, .gif	0:15
	CountingQuarterWaves	.mp4, .gif	0:25
WaveSpeed	WaveReflection	.gif	0:26
BoundaryBehavior*	FixedEndRefln	.mp4, .gif	0:05
	FreeEndRefln	.mp4, .gif	0:05
	LessDtoMoreD	.mp4, .gif	0:07
	MoreDtoLessD	.mp4, .gif	0:06
DopplerEffect*	StationaryBug	.mp4, .gif	0:16
	MovingBug	.mp4, .gif	0:18
StandingWaves*	ImperfectTiming	.mp4	0:37
	PerfectTiming	.mp4	0:22
	ParticleWaveMovie	.mp4	0:14
	DesmosJustPurple	.mp4	0:10
	DesmosStandingWave	.mp4	0:17
	OrangeBlueGreen	.mp4	0:10
	OrangeBlueLaterGreen	.mp4	0:22
Harmonics	LoopCounting	.gif	0:28

* We provided a second PowerPoint designed for importing into Google Slides.