Contents of Refraction and Lenses Folder
There are 14 folders inside of the Refraction and Lenses 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.	What is Refraction?	Refraction
2.	Optical Density, Light Speed, and n	OpticalDensity
3.	The Direction of Bending	BendingDirection
4.	Snell's Law of Refraction	SnellsLaw
5.	Snell's Law and Ray Tracing	RayTracing
6.	Determining the Index of Refraction	DeterminingN
7.	Total Internal Reflection	TIR
8.	The Critical Angle	CriticalAngle
9.	Refraction by Lenses	LensRefraction
10.	Lenses and Image Formation	ImageFormation
11.	Converging Lenses: Ray Diagrams	ConvLensRayDs
12.	Converging Lenses: Object-Image Relations	ConvLensObjectImage
13.	Diverging Lenses: Ray Ds and Object-Image Relations	DivLensRayDsPlus
14.	Mathematics of Lenses	LensMath

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

Folder	File Name	Format	Duration
Refraction	LessToMoreTransmission	.gif	0:04
OpticalDensity	LightPropagation	.gif	0:12
TIR*	BoundaryAnimation	.mp4, .gif	0:06
	ReflectionAndRefraction	.mp4, .gif	0:50
CriticalAngle	CriticalAngle	.gif	0:25
ConvLensObjectImage*	OpticsBenchLong	.mp4	0:38
	OpticsBenchShort	.mp4, .gif	0:12
DivLensRayDsPlus*	OpticsBenchAnimation	.mp4, .gif	0:19

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