WEEK OF March 10th-14th, 2025

COURSE: 8th Grade ADV Science TEACHER: Turner PERIODS: 1, 3, 4, 5, 6

	OBJECTIVES	ACTIVITIES	MATERIALS	HOMEWORK	ASSESSMENT	STANDARDS
MON	Describe what constitutes a wave. Describe the parts of a wave. Describe the properties of a wave. Differentiate between transverse and longitudinal waves. Differentiate between mechanical and electromagnetic waves. Describe how a sound wave travels. Describe amplitude, frequency, and speed of sound waves. Describe the properties of a sound wave that determine pitch and loudness. Describe how loudness is measured. Describe resonance and infrasound.	**ADV BR:** Wave questions **Students will:** . **ADV:** Complete Wave Speed & Frequency Word Problems; read Can You Hear This? Article and answer questions; read & discuss Infrasound article; watch Elephants & Infrasound video; discuss Unit 7 Notes pp.3-5. Complete PhET simulation - Waves on a String; complete Wave Speed & Frequency word problems; discuss Unit 7 notes pp.3-5; read Can You Hear This? Article; read Infrasound article; watch Elephants & Infrasound video; complete Sound Crossword.	Wave Article & questions Waves & Wave Properties guided notes & PPT Wave Speed practice problems Waves Graphic Organizer PhET simulation - Waves on a String Wave Speed & Frequency word problems E3/A+ Unit 7 notes Can You Hear This? Article Infrasound article Elephants & Infrasound video Sound Crossword	Finish any unfinished classwork	Participation	ACOS: 17. Create & manipulate a model of a simple wave to predict & describe the relationships between wave properties. a. Analyze & interpret data to illustrate an electromagnetic spectrum. 18. Use models to demonstrate how light & sound waves differ in how they are absorbed, reflected, & transmitted through different types of media. 19. Integrate qualitative information to explain that common communication devices use electromagnetic waves to encode & transmit information.
TUES	Differentiate between mechanical and electromagnetic waves. Describe how waves interact with matter and other waves.	**ADV BR:** Waves questions **Students will:** **ADV:** Complete Sound WebQuest; read Loud Sounds	Waves Graphic Organizer Waves Interaction Sort Sound Energy	Finish any unfinished classwork	Participation	ACOS: 17. Create & manipulate a model of a simple wave to predict & describe the relationships between wave properties.

	Describe how a sound wave travels. Describe amplitude, frequency, and speed of sound waves. Describe the properties of a sound wave that determine pitch and loudness. Describe how loudness is measured. Describe resonance and infrasound. Describe loudness of sound and how it affects hearing. Describe how and why sonar uses sound waves. Describe doppler effect.	Article; complete Decibel Scale Practice.	article & questions Sound WebQuest Loud Sounds Article Decibel Scale Practice			a. Analyze & interpret data to illustrate an electromagnetic spectrum. 18. Use models to demonstrate how light & sound waves differ in how they are absorbed, reflected, & transmitted through different types of media. 19. Integrate qualitative information to explain that common communication devices use electromagnetic waves to encode & transmit information.
W E D	Describe the properties of a sound wave that determine pitch and loudness. Describe how loudness is measured. Describe infrasound and how it affects animals. Describe loudness of sound and how it affects hearing Describe how and why sonar uses sound waves. Describe doppler effect.	**GEN BR**: Sound questions **ADV BR:** Sound questions **Students will:** **Adv:** Complete Sound Doodle notes; discuss infrasound & watch Elephants & Infrasound video; discuss how sound is measured in decibels; watch Decibel video; complete Decibel Scale Practice; complete Sound Crossword. **ADV:** Complete Checkpoint 7.1; read Hearing Loss Article; discuss Sonar & Doppler Effect & watch videos; complete Comparing Sound Waves Task Cards;	Sound Doodle notes Elephants & Infrasound video Decibel video Decibel Scale Practice Sound Crossword E3/A+ Checkpoint 7.1 Hearing Loss Article Sonar & Doppler Effect videos Comparing Sound Waves Task Cards Sound Waves Task Cards	Finish any unfinished classwork	Participation; checkpoint	ACOS: 17. Create & manipulate a model of a simple wave to predict & describe the relationships between wave properties. a. Analyze & interpret data to illustrate an electromagnetic spectrum. 18. Use models to demonstrate how light & sound waves differ in how they are absorbed, reflected, & transmitted through different types of media. 19. Integrate qualitative information to explain that common communication devices use electromagnetic waves to encode & transmit information.

		complete Sound Waves Task Cards.				
THURS	Describe the electromagnetic spectrum in terms of wavelength and frequency. Describe uses and dangers of electromagnetic spectrum waves. Describe how matter affects light interactions. Differentiate between reflection, refraction, diffraction, and interference.	**ADV BR:** Sound questions **Students will:** **ADV:** Discuss Unit 7 notes pp.5-7; watch The Original Double Slit Experiment video; complete Light & Matter Lab.	EM Spectrum guided notes & PPT Waves & EM Spectrum worksheet EM Spectrum Circuit E3/A+ Unit 7 notes The Original Double Slit Experiment video Light & Matter Lab	Finish any unfinished classwork	Participation; lab	ACOS: 17. Create & manipulate a model of a simple wave to predict & describe the relationships between wave properties. a. Analyze & interpret data to illustrate an electromagnetic spectrum. 18. Use models to demonstrate how light & sound waves differ in how they are absorbed, reflected, & transmitted through different types of media. 19. Integrate qualitative information to explain that common communication devices use electromagnetic waves to encode & transmit information.
FRI	Describe how light interacts with matter. Predict how light will interact with different types of matter. Describe how color is seen. Differentiate between color addition and color subtraction. Describe the electromagnetic spectrum in terms of wavelength and frequency. Describe uses and dangers of electromagnetic spectrum waves.	**ADV BR:** Light interaction questions **Students will:** **ADV:** Read Helpful or Harmful? Article; complete EM Spectrum WebQuest; discuss Unit 7 notes pp.7-13; complete EM Spectrum Activity.	Light Doodle notes Physics Classroom - Color Addition & Subtraction How a TV Works in Slow Motion Helpful or Harmful? Article EM Spectrum WebQuest E3/A+ Unit 7 notes EM Spectrum Activity	Finish any unfinished classwork	Participation	ACOS: 17. Create & manipulate a model of a simple wave to predict & describe the relationships between wave properties. a. Analyze & interpret data to illustrate an electromagnetic spectrum. 18. Use models to demonstrate how light & sound waves differ in how they are absorbed, reflected, & transmitted through different types of media. 19. Integrate qualitative information to explain that common communication devices use electromagnetic

						waves to encode & transmit information.