8TH GRADE PHYSICAL SCIENCE

ECHOLS MIDDLE SCHOOL

APRIL 2020 ISSUE 2

WEEK 1 ANSWERS

STEMscopedia:

Thermal energy from the Sun is transferred through radiation to the hammer. The thermal heat in the hammer is conducted to the hand.

a. radiation

b. conduction

c. convection

Reading Science:

1.C, 2.D, 3.A, 4.C, 5.A, 6.B

Math Connections: (#7-12 only)

- 7. Material 1: 62.5 C, Material 2: 72.5 C, Material 3: 64.5
- C, Material 4: 67.5 C
- 8. Material 1: 78, Material 2: 53, Material 3: 73, Material 4: 60
- 9. Material 2
- 10. Material 1
- 11. Material 2
- 12. Material 1

Guided Practice:

Side 1

1. Thermal energy, 2. conduction, 3. convection, 4, radiation, 5. warmer, 6. cooler, 7. temperature, 8. Sun

Radiation, Touch, Sun, Convection, Less, Conductors, Insulators



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Vocabulary with definitions

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Example calculations for Math Connections for Week 2

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VOCABULARY & DIAGRAMS

TRANSVERSE WAVES

- Amplitude- the maximum distance that the particles of a wave vibrate from the rest position; the height from rest to crest or rest to trough
- Wavelength- the distance from any point on a wave to an identical point on the next wave, i.e. the distance from crest to crest or trough to trough.
- <u>Frequency</u>- the number of waves produced in a given amount of time. Measured in Hertz.
- Wave Speed-The speed at which a wave travels
- <u>Period</u>- how long it takes the wave to complete one cycle. Measured in seconds.
- Crest- the highest point of a wave
- Trough- the lowest point of a wave

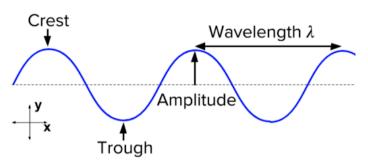
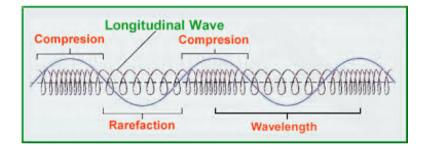


Figure 1: Parts of a transverse wave.



COMPRESSION/LONGITUDINAL WAVES

- <u>Compression</u>- a place were the waves are close together
- Rarefaction- a place where waves are farther apart
- Wavelength- distance from any point on a
 wave to an identical point on the next wave,
 i.e. the distance from compression to
 compression or rarefaction to rarefaction.

CALCULATIONS HELP

