# 33.1 Light & Sound (part III)



Summarize main points from each video.

Video Title / topic	
Video Title / topic	
Video Title / topic	

# Topic Introduction



## Summarize your understanding of each paragraph.

Previous topics on light and sound introduced you to the physics of waves. You have learned that light is electromagnetic radiation within a certain portion of the electromagnetic spectrum - and sound is a form of mechanical energy caused by vibrations of matter
As a physical science student, you need to grasp that visible light is only a small portion of the total electromagnetic spectrum. Sound an light are similar in that both are forms of energy that travel in waves Both have properties of wavelength, frequency and amplitude.
Light (color) and sound provide clues to a variety of scientists about their areas of study. For example, chemists, geologists and astronomers each use light and sound to investigate their scientific efforts. So to do biologists, ecologists, and medical professionals.
But disciplines other than natural science also deal with sound a light. For example marketing professionals, musicians, architectural designers, and fashion designers each have an interest and need-to-know about sound, or light, or both.

# Read/Summarize Text



- 1. Read the passage.
- 2. Underline key expressions in each sentence.
- 3. Re-write each word (or expression) you underlined.
- 4. Summarize the passage.

#### Color psychology

1

Color psychology is the study of hues as a determinant of human behavior. Color influences perceptions that are not obvious, such as the taste of food.

2

Color can indeed influence a person; however, it is important to remember that these effects differ between people. Factors such as gender, age, and culture can influence how an individual perceives color.

Color psychology is also widely used in marketing and branding. Many marketers see color as an important part of marketing because color can be used to influence consumers' emotions and perceptions of goods and services. Companies also use color when deciding on brand logos.

https://en.wikipedia.org/wiki/Color psychology

Re-write words j	you unaeriinea 			3
Using a complet	e sentence, sur	nmarize or rep	ohrase the passage	2

# Read Text for Comprehension

Read this article for deeper understanding. No summary is required, although you may want to circle, underline, or mark key ideas and words.

Light and color can influence how people perceive the area around them. Different light sources affect how the colors of walls and other objects are seen. Specific hues of colors seen under natural sunlight may vary when seen under the light from an incandescent (tungsten) light-bulb: lighter colors may appear to be more orange or "brownish" and darker colors may appear even darker.

Carl Jung is most prominently associated with the pioneering stages of color psychology. Jung was most interested in colors' properties and meanings, as well as in art's potential as a tool for psychotherapy. His studies in and writings on color symbolism cover a broad range of topics, from mandalas to the works of Picasso.

Jung attempted to unlock and develop a language, or code, the ciphers of which would be colors. He looked to alchemy to further his understanding of the secret language of color, finding the key to his research in alchemical transmutation. His work has historically informed the modern field of color psychology.

#### The general model of color psychology relies on six basic principles:

- 1. Color can carry a specific meaning.
- 2. Color meaning is either based in learned meaning or biologically innate meaning.
- 3. The perception of a color causes evaluation automatically by the person perceiving.
- 4. The evaluation process forces color-motivated behavior.
- 5. Color usually exerts its influence automatically.
- 6. Color meaning and effect has to do with context as well.

Since color is an important factor in the visual appearance of products as well as in brand recognition, color psychology has become important to marketing. Recent work in marketing has shown that color can be used to communicate brand personality.

Research on the effects of color on product preference and marketing shows that product color could affect consumer preference and hence purchasing culture. This is mostly due to associative learning. Most results show that it is not a specific color that attracts all audiences, but that certain colors are deemed appropriate for certain products.

## Draw Illustration



## Copy and Label the Illustration in the Space Provided

## **Examples of specific color meaning**

Red Yellow		Green	Blue	
Lust	Competence	Good Taste	Masculine	
Power	Happiness	Envy	Competence	
Excitement			High quality	
Love			Corporate	

Pink	Violet/Purple	Brown	Black	White	
Sophistication	Authority	Ruggedness	Grief	Happiness	
Sincerity	Sophistication		Sophistication	Sincerity	
Feminine	Power		Expensive	Purity	
			Fear		

https://en.wikipedia.org/wiki/Color psychology

Draw (Copy) the Illustration Here

# Artistic use of sound to convey color

A Colour Symphony, Op. 24, F. 106, was written by Arthur Bliss in 1921–22.

A Colour Symphony was written to be performed at the Three Choirs Festival, held in 1922 in Gloucester, at the invitation of Sir Edward Elgar.

Bliss decided to write a symphony, but was at first undecided what the theme or character of the work would be. He could not get started for some weeks. One day, by chance, he came across a book on heraldry in which he read of the symbolic meanings attached to certain colours; this gave him the notion of writing a work about colours. He attempted to give each movement a character corresponding to these meanings, but without attempting to depict the colours themselves.



Reference URL. <a href="https://en.wikipedia.org/wiki/A">https://en.wikipedia.org/wiki/A</a> Colour Symphony

#### YouTube

31:58 Arthur Bliss: A Colour Symphony (1921/1932)

https://youtu.be/zi6FdphM7CA

Arthur Bliss (1891-1975): A Colour Symphony (1921/1932).

I. Purple. Andante Maestoso

II. Red. Allegro vivace [06:18]

III. Blue. Gently flowing [13:20]

IV. Green. Moderato [23:29]

## **Show-Off Your Smarts!**



### **Instructions**

- Complete as an individual or small group.
- Discuss your ideas/answers/responses in a small group.
- Select one person to present your responses to the class.

Q1. How can this information be applied to a young-person's life?
Q2. How does this information apply to (or impact) communities?

- Q3. When do scientists need to apply this information? How?
- Q4. How would a person from 100 years ago view this information?
- Q5. How does this topic connect to other science topics or math?

Write down at least three words introduced or covered by this topic.

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## Make a Poster

