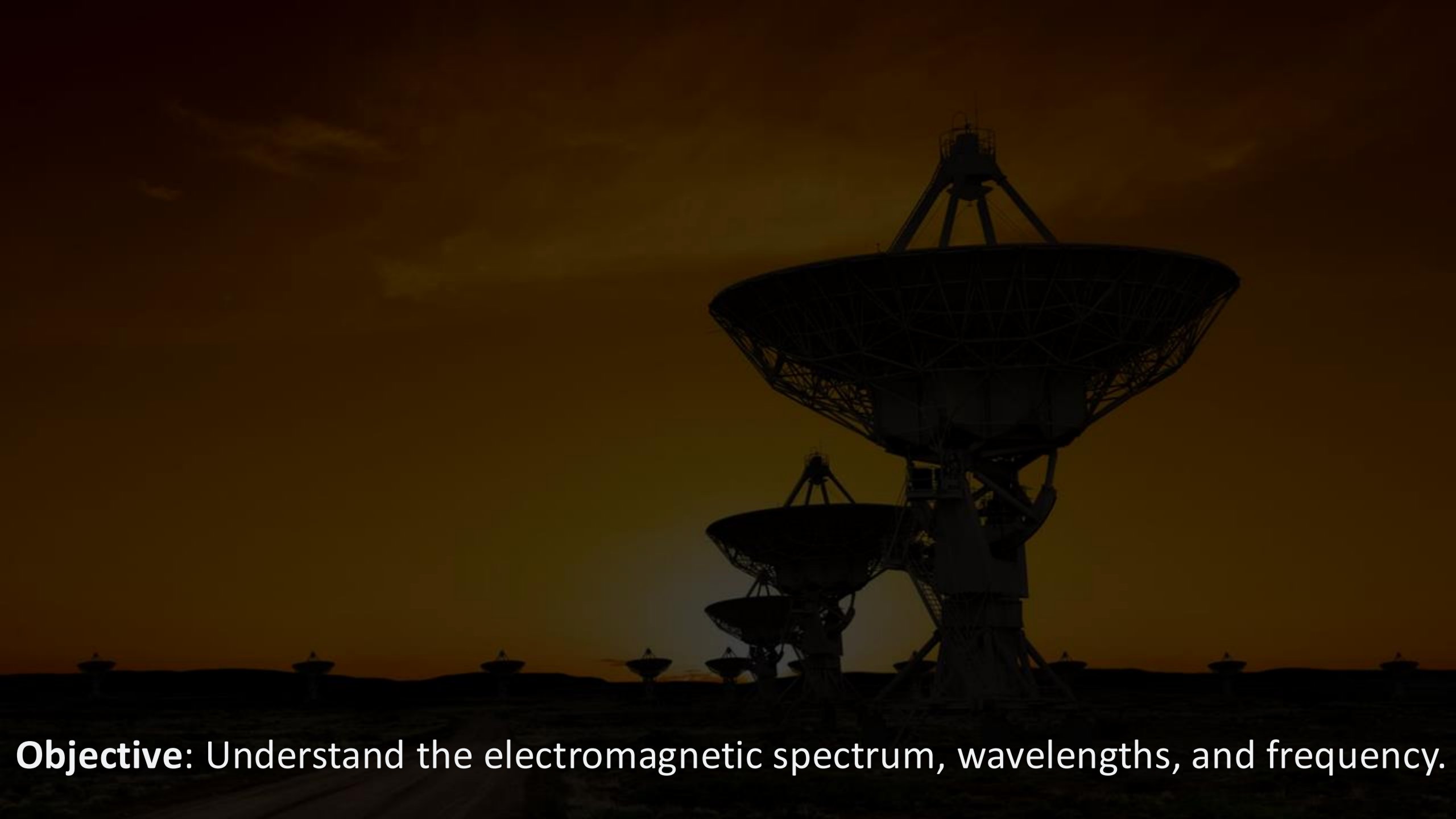


Introduction to Electromagnetic Spectrum Pre Lesson





Objective: Understand the electromagnetic spectrum, wavelengths, and frequency.



How is energy used in our daily lives?



Light bulbs



Microwaves



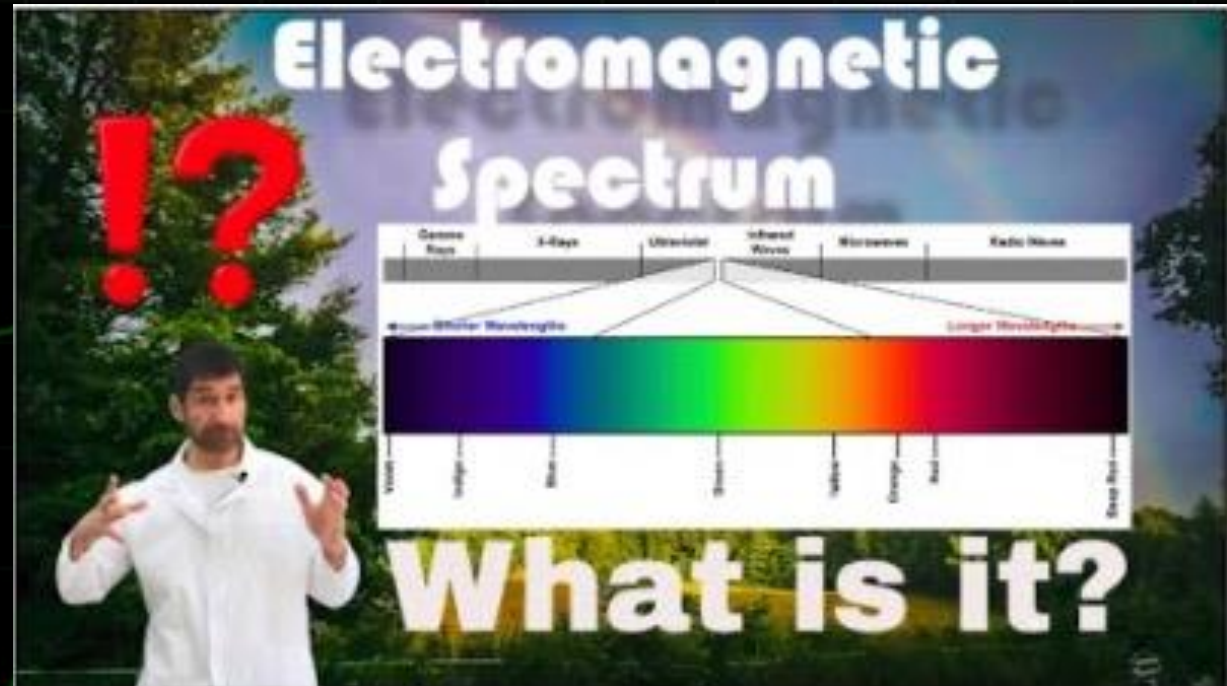
Cell phones



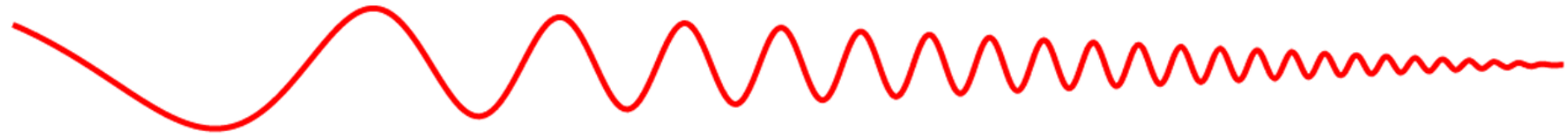
Car radio

The Electromagnetic Spectrum

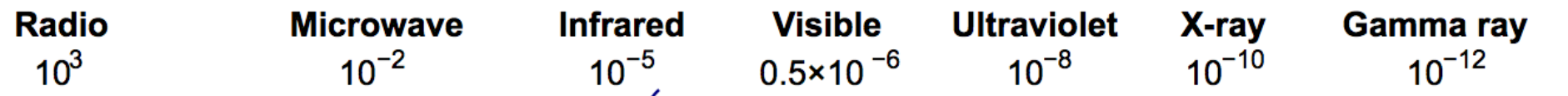
The electromagnetic spectrum is the range of all types of electromagnetic radiation, from the shortest gamma rays to the longest radio waves.



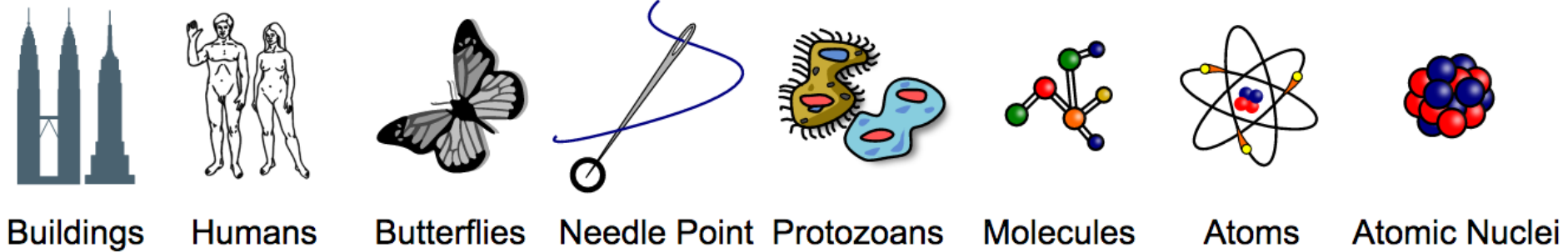
Penetrates Earth's Atmosphere?



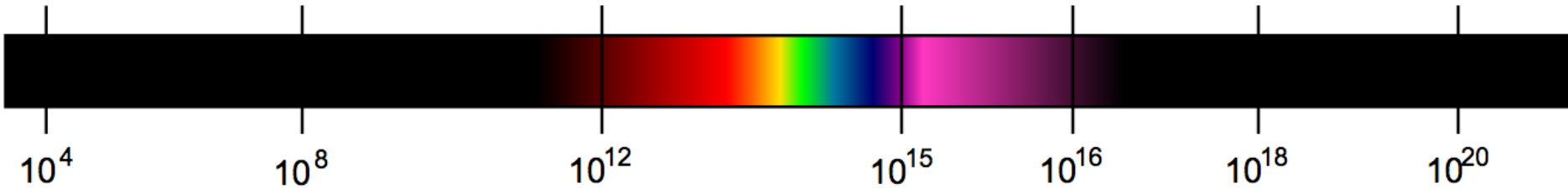
Radiation Type
Wavelength (m)



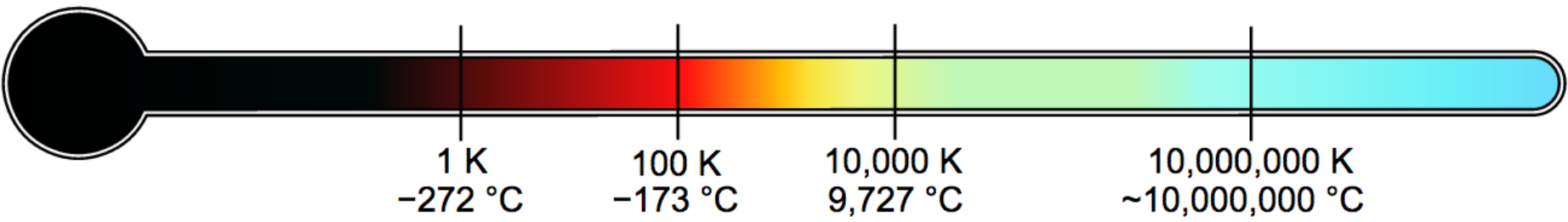
Approximate Scale
of Wavelength



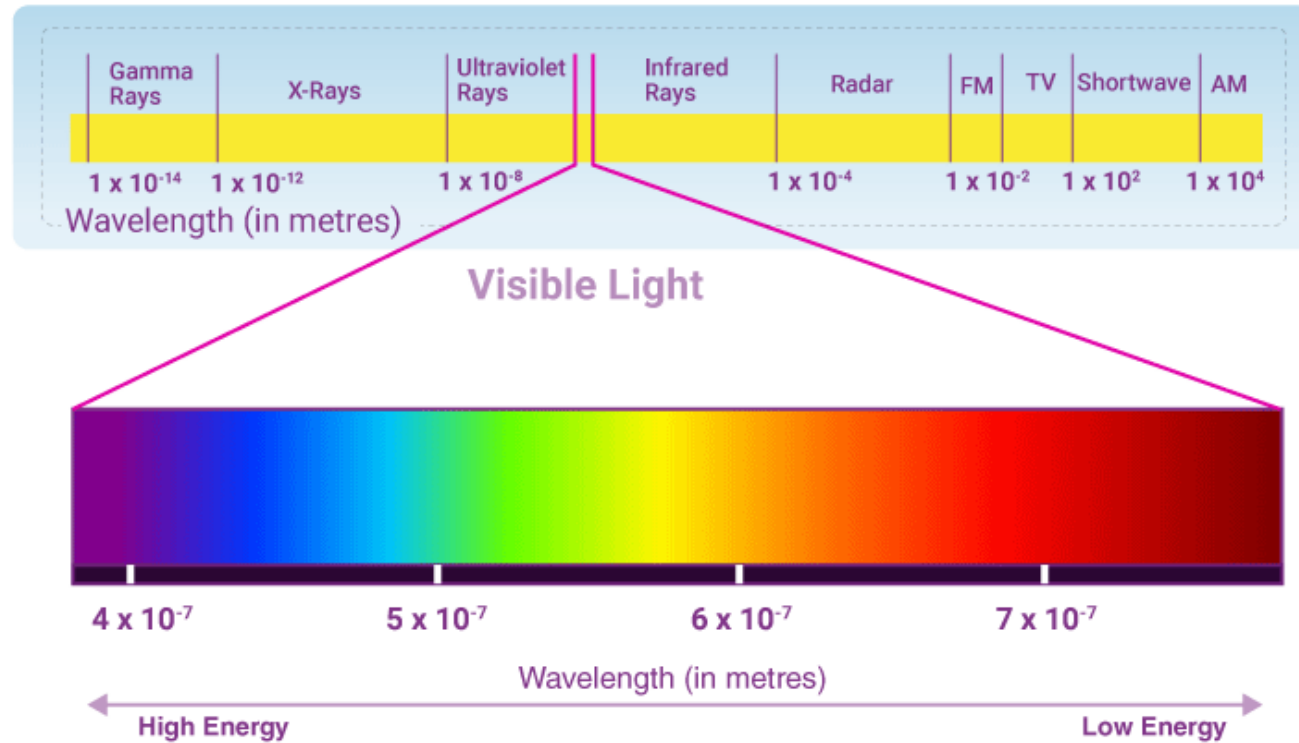
Frequency (Hz)



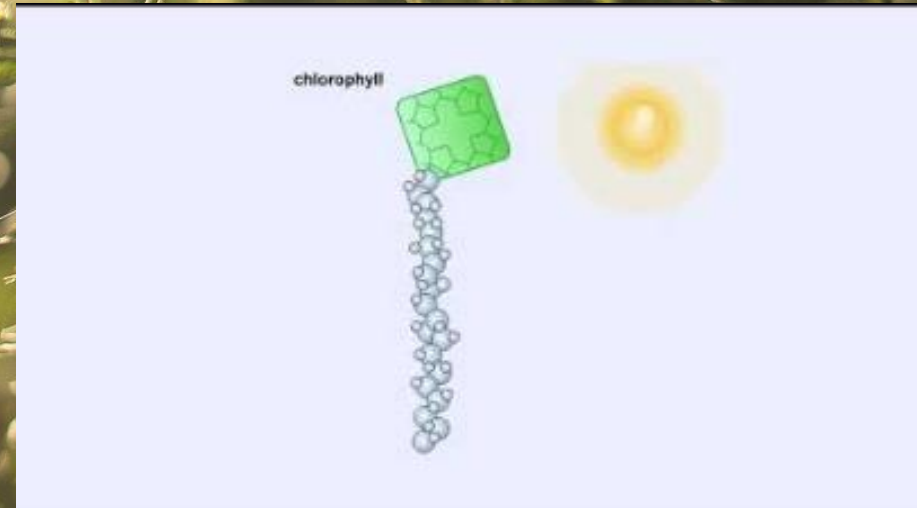
Temperature of
objects at which
this radiation is the
most intense
wavelength emitted



THE ELECTROMAGNETIC SPECTRUM - VISIBLE LIGHT



Visible light plays a significant role in agriculture, and its impact on plant growth and development is crucial for farmers and researchers.

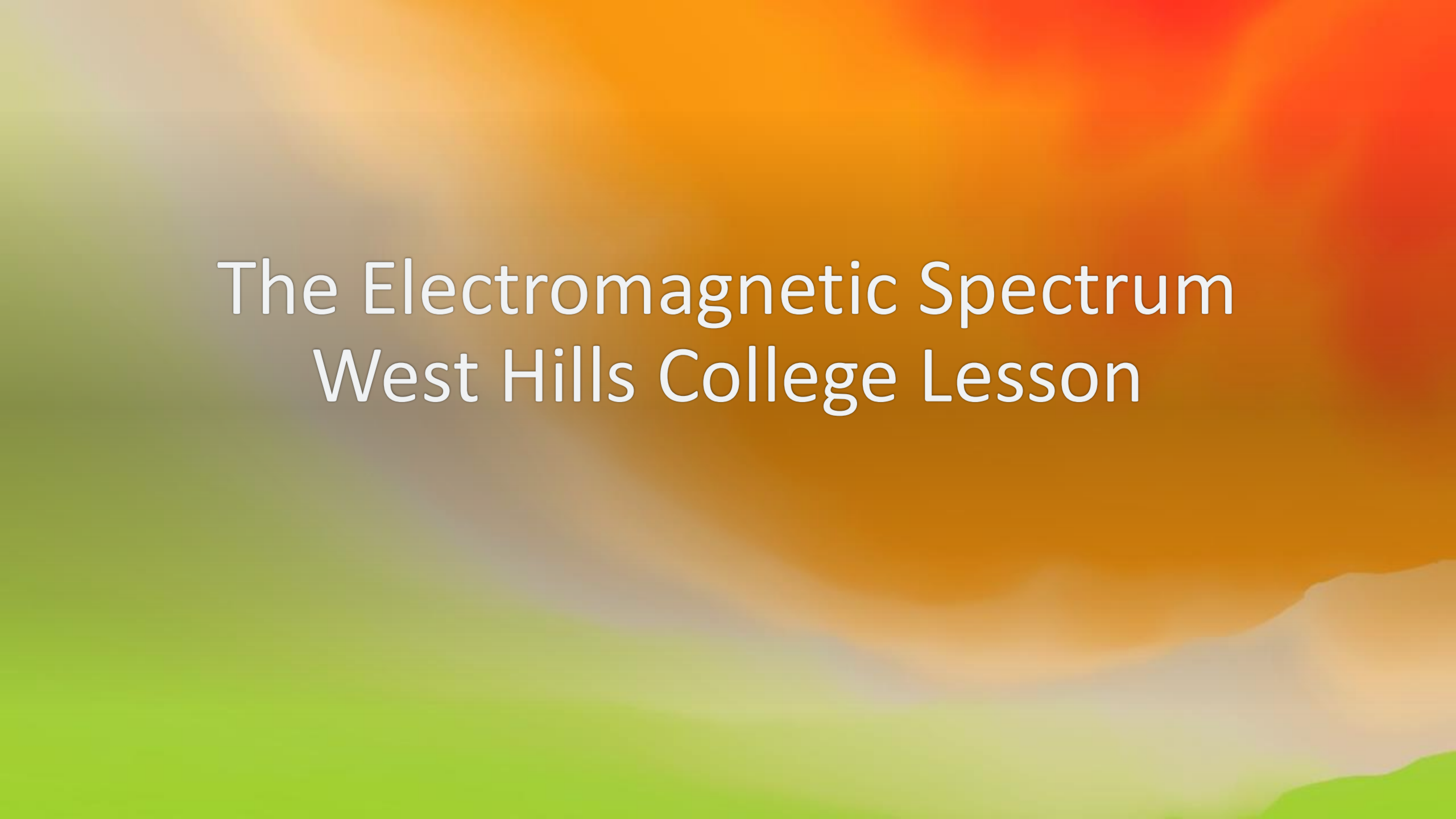


Conclusion

Key points from the presentation:

- Understanding the electromagnetic spectrum
- Relationship between wavelength and frequency
- Significance for agriculture applications





The Electromagnetic Spectrum

West Hills College Lesson

A close-up, slightly blurred photograph of a lush green wheat field. The wheat stalks are tall and full of grain, with their awns clearly visible. The background is a soft-focus expanse of more wheat, creating a sense of depth. Overlaid on the center of the image is the title text in a clean, white, sans-serif font.

Introduction to Multispectral Sensors in Agriculture



Operation and function of multispectral and thermal sensors



Objective:

Understand the use of multispectral and thermal sensors in agriculture.



Use in Agriculture Continued



Crop monitoring:

Examples of data collection (NDVI, plant health indices)

Precision agriculture benefits



Disease detection:

Early detection and mitigation

Reducing crop loss



Yield estimation:

Predictive analytics

Resource optimization

Conclusion

Key points of
the lesson:

```
graph TD; A[Key points of the lesson:] --- B[Understanding multispectral sensors]; A --- C[Their technical specifications]; A --- D[Applications in agriculture];
```

Understanding
multispectral
sensors

Their technical
specifications

Applications in
agriculture