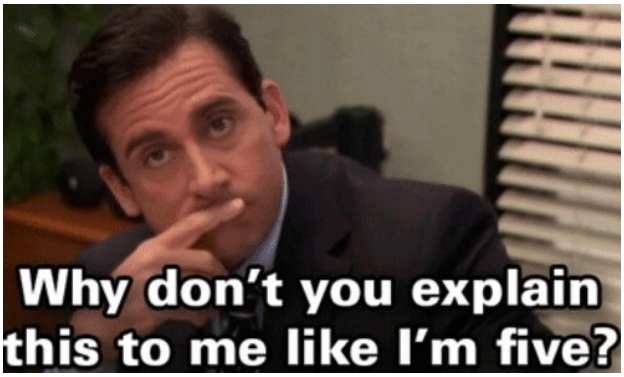
# Science 8 - Explain To Me Like I'm Five!

As a grade 8 student it is now your responsibility to pass on what you have learned to much younger students who are also studying light and optics. To do this you will make an instructional presentation/video for younger students where you explain the following:




**1. Choose one of the nine technologies/devices that use parts of the Electro-magnetic Spectrum**

- Fibre Optics
- Flat screen TV
- Telephone, aka cell phone
- Microwave
- Camera
- Projector/Smartboard
- Telescope
- Satellite Dish
- Tanning bed

**2. Create a presentation/video to discuss the following:**

- A general description of the device
- A bit of history about the device
- What is the function of the device
- What part of the electromagnetic spectrum it uses

- What are important structures of the device that use radiation
- How the device affects our lives

**3. The most important part is to explain the device using simple words that won't confuse young students**

- Perhaps have a walk-through of how the device works
- Convert "tough" to understand statement to statements using simple sentences
- Write statements in bullet point formation, at least 3 bullet points for each subtopics
- Use a lot of relevant images

**Young students love to laugh, make it funny and entertaining!**

Groups of 3 Max!

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Examples of simplifying a statement:

**Tough -** Light travels in a wave, which has a frequency, amplitude, and wavelength

**Simplified -** Light travels in a wave, just like the shape when you drop a rock in a pond and it sends out ripples. Each ripple has a certain height, and length. And if you count how many times that ripple splashes against the side of the pond in one second, then thats it's frequency.

**Tough -** A convex lens refracts light to converge in a single focal point.

**Simplified -** A piece of glass that is bigger in the middle (Just like a magnifying glass) can be used to make all the light that goes through it bend towards a single point.

**Tough -** A flat screen tv is a technology used which enables people to see content on a flat, and thin surface. Flat screen tv's are much more lightweight than their older counterparts.

**Simplified -** A flat screen tv is one of the really thin tv's we have hung in the hallway. It is very flat and lightweight compared to thicker (older) tvs.

## Questions you should know the answer to by the end of this project !

### A general description of the device

- Where have you seen this device?
- Where is it used around the world?

### A bit of history about the device

- Who invented the device?
- When was the device invented?
- Was the device used as intended?

### What is the function of the device

- What is the purpose of the device?
- Why was the device invented in the first place?

### What part of the electromagnetic spectrum it uses

- What is electromagnetic radiation in the first place?
- Radio waves? UV rays? which wave does the device use?
- What's the wavelength of the radiation mentioned?

### What are important structures of the device that use radiation

- Are there any structures in the device that reflect, refract, converge, or diverge light?

### How the device affects our lives

- How will this device change how we live our daily lives?
- Are there any hazards involved in using this device?