Light Production Activity Stations

Light Production Methods	
Incandescence	**1. What are pros & cons of incandescent light production** **2. Why is a coil of wire used in an incandescent bulb rather than a straight wire?** **3. Compare the shape of incandescent light bulbs with fluorescent bulbs. Why are these shapes required for the different types of light production?**
Electric Discharge http://bit.ly/2gzXnVX	**1. Why is it necessary to use noble gases in "neon" signs?** **2. Why isn't this type of light production more widely used?** ***Your thoughts & ideas*** **3. Why is this type of light production often combined with fluorescence?** **4. Why are signs usually only one colour?**
Fluorescence	**1. Why are fluorescent lights considered hazardous waste and should not be thrown in the garbage?** **2. Why do soap companies often put fluorescent pigments in their laundry detergents?** **3. Why is fluorescence often used as a security measure?**
Phosphorescence	**1. Why don't glow in the dark stars last all night?** **2. What are other potential uses for phosphorescence?** ***Brainstorm some ideas***
Triboluminescence http://bit.ly/2qAYnLK	**1. Triboluminescence is often compared to lightning. Why do you think this is?**

Chemiluminescence	**1. What happens to the glow stick in hot water? WHY? Cold water? WHY?** **2. When people want to make their glow sticks or glow necklaces last longer they put them in the fridge or freezer? Does this work? Why?** **3. Where might chemiluminescence be a good choice for light production?**
Bioluminescence **http://bit.ly/2paeApT** **http://bit.ly/2qGOGuB**	**1. Why do you think that 90% of all ocean creatures living below 1500 feet are bioluminescent?** **2. How is bioluminescence being used in medicine?** **3. What are other potential uses for bioluminescence? *Brainstorm some ideas***
LED	**1. Why does the green light brighten when the magnet moves one way and the red light when it moves the other?** **2. Why are LED good as Christmas tree or decorative lighting?** **3. What are advantages and disadvantages of LEDs?**
Laser **http://bit.ly/2fKdUWc**	**1. Why can lasers shine such a far distance?** **2. Why are lasers only 1 colour (ie, not white light)?** **3. Why can lasers be dangerous? (especially to eyes)** **4. What about lasers make them a useful medical tool?**