

# MATERIALS RELATED TO ELECTRONICS AND PHOTONICS.

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### **MOTIVATION**

Materials related to electronics and photonics is a huge subject. I choose this subject because it is related to chemistry. I also like semiconductors and topics related to semiconductors. So I choose this topic which can cover my both likings.

This subject has a large scope in today's world because now we are becoming Tech-Savvy. Every single need of today's human has been done by Electronic appliances so it is important to study this subject.

## **GOALS**

### Way of Studying:

As my mentor suggest 3 ways of studying the subject and I choose one-First I will learn about all materials which are used in electronic and photonic devices. After that, I will learn the structure and function of such devices where these materials are used.

#### **TIMELINE**

Dates	Topics:
3-5 April	Prepare Plan of action
6-7 April	Inorganic Materials
8-10 April	Organic materials
11-13 April	Nanostructured Materials
14-16 April	Ionic crystals
17-19 April	Alloys
20-22 April	2D Structures
23-25 April	Conducting polymers

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26-27 April	Polycrystalline material(especially in PV's)
27-30 April	Prepare partial report
1-3 May	solar panel
4-6 May	Diode
7-9 May	Transistor
10-12 May	LED
13-14 May	Laser
15-16 May	radio transceivers
17-20 May	correlate materials with devices, mechanism of construction

21-23 May	Advantages, Disadvantages, future scope
24-25 May	Study Exceptions
26 May onwards	Start preparing the final report

## **Method of approach**

- 1]Materials
  - i]what it is?
  - ii] Their synthesis.
  - iii] fabrication
  - iv] use of materials in various fields etc.
- 2]Devices
  - i] What is it?
  - ii]How does it work?
  - iii]How does it make?
  - iv]Uses of devices.