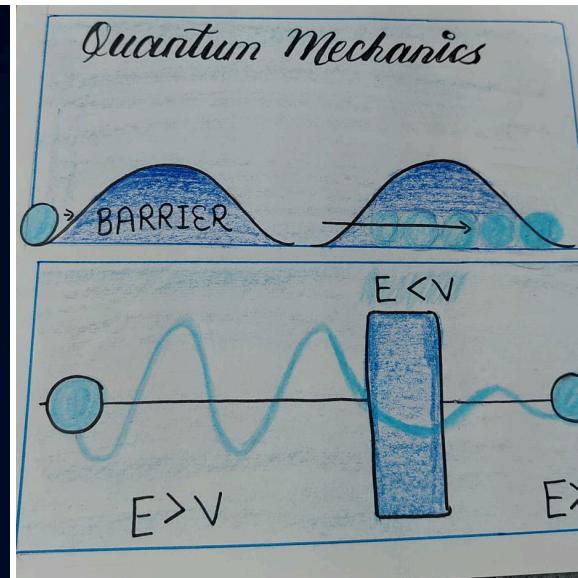




## Club project spotlights :

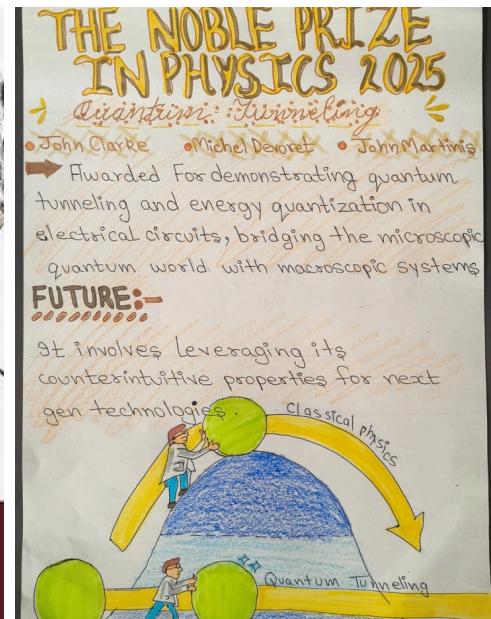
The session on the Nobel Prize in Physics 2025 helped students understand how curiosity and innovation led to discoveries that changed the world. Students learned about the Nobel Prize and explored the exciting physics concepts behind the award.



John  
Clarke

Michel H.  
Devoret

John M.  
Martinis



Student Voices : • "I enjoyed learning about the Nobel Prize and famous scientists."  
• "It was inspiring and made me curious to learn more about physics."

# Project Report and Skill Development

## DEEPER DIVE

Amardeep Kaur 09/01/2025



**Project Goals:** Quantum tunneling is linked with optics because light can pass through very small gaps due to its wave nature.

**Process/ Steps:**

1. The 2025 Nobel Prize in Physics was awarded to three scientists: John Clarke, Michel H. Devoret, and John M. Martinis.
2. Quantum tunneling is a strange quantum effect where something can pass through a barrier even if it doesn't have enough energy
3. This work helped scientists build the foundation for new technologies like quantum computers and advanced sensors

**Skills Learned :**

1. Creativity
2. Scientific thinking

### Challenges and solutions :

**Challenges:** Students found quantum tunneling challenging because it is abstract, goes against everyday experience, and involves new ideas and terminology.

**Solution:** Simplified terminology, use of simple diagrams and animation.

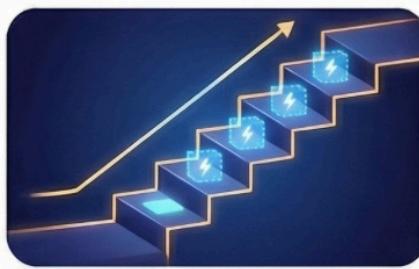
**The Nobel Prize in Physics: Quantum Goes Big**

### Quantum Weirdness on a Human Scale

Scientists proved quantum effects, once thought microscopic, can exist in circuits we can see.



**Discovery 1: Quantum Tunneling**  
They showed a current can "ghost" through a solid barrier without breaking it.



**Discovery 2: Energy Quantization**  
Their circuit absorbed energy in fixed packets, like climbing a staircase instead of a ramp.

### Meet the Team :



**Aashna**  
IX-D



**Tanya**  
VIII-G



**Gurleen Kaur Bhangu**  
VIII-G



**Jaskaran Singh**  
VI-D



**Jasleen Saini**  
VI-G

**Club Name:**  
Light Explorers

**Motto:**  
Chasing the spectrum

**Manager:**  
Amardeep Kaur