

Maglev Trains ~ Project**Name:** _____**Potential Credits:** /25**Research:**

Describe how superconductors and the effects of magnetic fields have been applied to develop the maglev train. Discuss the pros and cons of such a train in terms of design and energy.

Your paper should be between 300-500 words and should include diagrams and descriptions in your words on the following:

- **Superconductors** – What are they? How do they basically work and what is needed to keep them going?
- **MagLev Trains** – describe function and basic design. Where can they be found? Energy requirements, maximum speeds etc.

Diagrams and guidelines for searching how they work:

- What is the **Electrodynamic Suspension System** (EDS)?
- How do they **accelerate** to get up to levitation speed? Discuss the physics involved.
- How are the **rails** designed? Discuss the physics (diagram would be useful here)

Please cite all sources in a basic bibliography at the end.