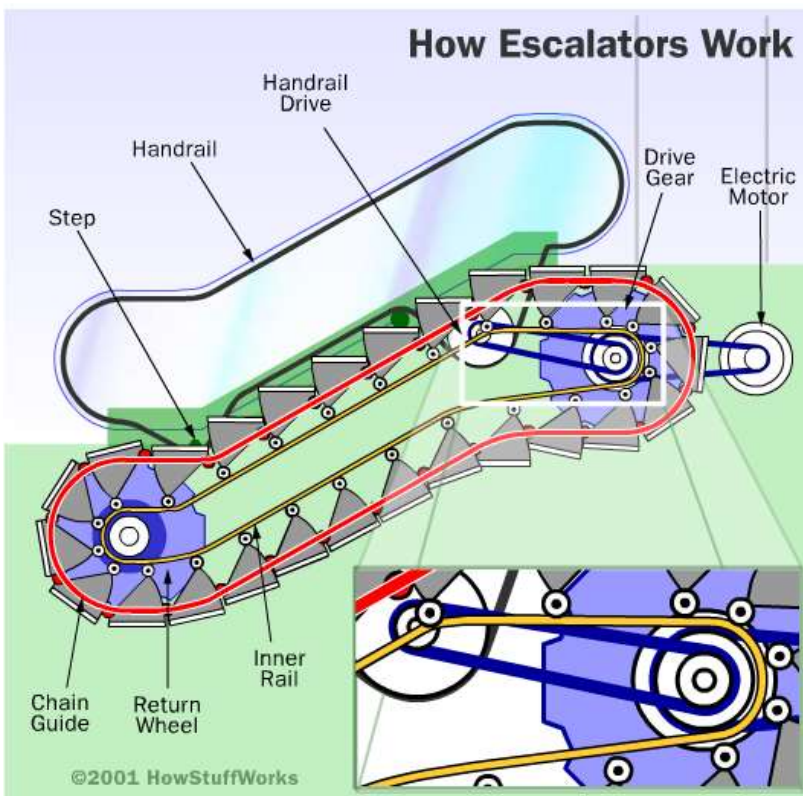


Friday Yr 5 English – Explanation Text

How Escalators Work

Escalators are one of the largest machines people use on a regular basis. They are, however, also one of the simplest. In this article, we'll look inside an escalator to find out exactly how these brilliant machines work.

The core of an escalator is a pair of chains, looped around two pairs of gears. An electric motor turns the **drive gears** at the top, which then rotate the chain loops. The motor and chain system are housed inside the **truss**, a metal structure extending between two floors.



Instead of moving a flat surface, as in a conveyer belt, the chain loops move a **series of steps**. Therefore, as the chains move, the steps always stay level. At the top and bottom of the escalator, the steps collapse on each other, creating a flat platform. Consequently, this makes it easier to get on and off the escalator. In the diagram, the internal workings of an escalator can be seen.

Each **step** in the escalator has two sets of wheels, which roll along two separate tracks. The upper set (the wheels near the top of the step) are connected to the rotating chains, and so are pulled by the drive gear at the top of the escalator. The other set of wheels simply glides along its track, following behind the first set.

[CLICK](#) for animated version of diagram

Friday Yr 5 English - Research Questions

1. How do hot air balloons work?	2. How do toilet flushes work?	3. How do electric toothbrushes work?
4. How do parachutes work?	5. How do CDs and DVDs work?	6. How do combine harvesters work?
7. How does bullet proof glass work?	8. How do airbags work?	9. How does a fire extinguisher work?
10. How do touch screens work?	11. How do microwaves work?	12. How does sunscreen work?

Recommended website for research:

<http://www.explainthatstuff.com/>