Real Life Applications of Vectors

- Vectors are quantities that have both magnitude and direction.
- Some real life applications of vectors are outlined below:

1) Vectors are used by pilots, of both commercial airliners and air force jets. A plane's speed and direction is defined by a vector and the direction and speed of the wind is also represented by a vector. If a wind is blowing a plane off course, the resulting vector can be calculated easily to see how the course is being adjusted.

2) Vectors are used extensively in many different sports. In baseball, for example, the batter needs to adjust his striking action in order to send the ball along a particular vector. The catcher needs to be able to predict the speed and direction of the ball in order to be able to catch it when it drops.

3) Electric and Magnetic fields can be described using vectors. An electrical engineer needs to have a very good understanding of vectors to be able to design, maintain and troubleshoot electrical systems.

4) Vectors are used a lot in navigation. This can arise in the design of Sat Navs, or plotting travel routes at sea. The car ferry that crosses Cork Harbour has to adjust it's travel vector because of the strong river current flowing through the harbour. A similar ferry can be seen at Killimer in Clare that links Clare to Kerry by crossing the Shannon estuary.