

Interesting Facts 3 - How cats' eyes and Catseyes® work

The myth that cats can see in the dark is not strictly true, because in total darkness they cannot see any better than we can! However, they are better adapted to see in low levels of light than we are.

A cat's eye lets in several times more light than a human eye. (In poor light the cat's iris contracts and the pupil opens up to let every drop of light in, and in bright light the pupil narrows to a thin vertical slit.)

Cats also have a 'mirror' layer at the back of their eye, which is very reflective. It glows a silvery greeny golden colour in most cats (but ruby red in Siamese cats). In humans we have a black layer that just absorbs the light – but if you shine a bright light (such as a torch, or car headlights) into the eyes of a cat at night, you see the light reflected back by the 'mirror' at the back of the cat's eye.

The idea of light being reflected back led Percy Shaw to invent the reflective road studs, commonly called 'Catseyes'®.

These small studs are set at regular intervals in the middle of the road. Each 'catseye' has two self cleaning glass and metal beads. These have a convex lens (like the lens in an eye) in front of an aluminium mirror, all set into a rubber pad. As traffic runs over these studs, set in the road surface, the beads depress and brush against the moulded casing, which cleans and squeezes rainwater out at the same time. They are set at an angle to reflect the car's headlight back to the drivers.

These 'Catseyes' are said to be one of the greatest inventions to have saved countless lives on our roads, by making it easier for drivers to see the road ahead.

Interesting fact

When we refer to the eyes of cats we say.....

cats' eyes

When we refer to the reflective studs in the road we say...

"Catseyes"

When we refer to Nationwide reflectors we say.....

Cats' Eyes for Kids