

## Aim of lesson

To help the young people to realise how inconceivable it is that chance evolution could bring about the world we live in.

## Bible background

Psalm 94:9

## Preparation required

Read through the lesson and familiarise yourself with the points that it makes. You may have some other materials about eyes and sight - or you may be able to get some from the library.

## Suggested outline of lesson

### What do you see?

Get the young people (they've probably done it already) to look at the pictures and say what they see. In case you're not sure:

- Is this a young woman or a man playing the saxophone?
- Is this a man wearing glasses, or has someone written the word 'Liar'?
- Is there a triangle or not?
- *My wife and my mother-in-law*, published in 1915 by the cartoonist W.E.Hill.
- A duck or a rabbit?
- Are the diagonal lines parallel? (They are)
- How many legs has the elephant?

The point of this exercise, apart from being amusing, is that our sight is incredibly intelligent. It is not just that we see a sort of photograph of things around us, but that our sight - our eyes and brain working together - interprets what we see and tries to make sense of it.

It is worth making the point, in passing, that nearly all the time this is an enormous blessing, which we take for granted. We recognise someone we know a long way away just from a brief glance; we can pick out a word on a crowded page; we see out of the corner of our eye a ball about to hit us on the head, and instantly we duck. Sometimes however it causes us to 'see' things that aren't there - people imagine they have seen ghosts of dead people, for instance - and we need to be aware that our sight can be deceptive. This is relevant to our theme; we need to be sure, whether evolutionist or creationist, that we are seeing what is really there, not what we expect to see.

Ask the young people what they feel when they are looking at something that can be one of two images - the first picture, for example - and they try to 'see' the other one. It is quite hard to switch, but once we have 'seen' the other one it is equally hard to switch back. This illustrates how complex our sight is. Our brains are working hard to make what we see into something we can understand, and once we think we have understood it, our brains try to shut out details that don't fit. A lesson about life as well as our sight.

### **Thinking about seeing - 25 amazing facts about our sight**

Talk through some or all of the points in this list. There's no need to labour through them all if you feel that the list has made its point; alternatively the young people may be interested enough to want to read the lot. You may find the following additional comments helpful:

1. This needs both tears and eyelids; without one the other would be no good.
2. So our eyes are constantly being washed and disinfected.
3. This may sound a silly question, but how does a hard bone know that it has to mould itself in order to permit a soft round thing to fit in a hole?
4. If our cornea distorted or clouded the image coming into our eye our sight would be useless. But how could this have evolved?
5. Try to imagine how the eye could have evolved a mechanism to overcome this.
6. Many people today have their sight damaged through the effect of sunlight; imagine what would happen without an iris.
7. Imagine if you were given some pieces of transparent elastic and told to make a lens!
8. These muscles have to rotate both eyes independently but get both to point to the same thing. This is a skill we learn as babies, but the accuracy of the mechanism is still amazing.
9. Yet all this happens without us thinking about it at all.
10. Imagine a mathematics question in which you were asked to calculate the speed of a ball from the rotation speed of an eye inside a moving head ...
11. ... when the ball is against a moving background!
12. We know that if we wear reversing spectacles, which turn the image upside down before it enters the eye, our brain corrects itself after a while. That makes it sound as though it were easy, but try to imagine what needs to be done to achieve it.

13. We don't often have to see in the dark, but in Bible times the world was lit only by the moon, stars and oil lamps for 12 hours a day.
14. For instance, the best way to see the tail of a comet at night is not to look directly at it, but to one side.
15. The rest of our vision is not particularly well-defined, and is largely in black and white. But our brain fills in the rest of the picture, and whenever we want to see something properly, our eyes rotate.
16. The numbers here are mind-boggling. It's not just that there are so many cells, but that the signals from them all are interpreted properly by our brains.
17. Perhaps the most remarkable thing about our sight is the way the eye and the brain interact. Our eyes, and a large part of our brains, would be no use without each other.
18. In general cameras are a pale imitation of what our eyes do. TV cameras are (compared with an eye) large, cumbersome things, which need a lot of electricity, but which still cannot do many of the things we do. They photograph things but don't interpret them at all.
19. This interaction between our eyes and brains is remarkable, and it means that we have an incredible ability to see things we are looking for. Finding a needle in a haystack is still not easy, but if the needle came into view the chances are that we would find it.
20. A video lead, by comparison, is just one wire carrying one signal.
21. How could this have evolved?
22. Darwin didn't know about this bit.
23. How could this have evolved? Imagine over one and a half million nerve fibres connecting up to random brain cells on two sides of our brain, and the poor brain trying to sort out the confusion.
24. It seems that during the formation of the embryo the fibres that make up the optic nerve grow from the eye to join up with our brains, which are some distance away. Every fibre has to link to the right part of the brain, and experiments with goldfish have shown that if one of the fibres is diverted it simply turns round and charts a new course to get to its correct destination. How does it know where to go?
25. Darwin's comment at the start of the students' notes still seems valid.

The example from the booklet by brother David Pearce is yet another illustration of the wonder of our eyes.

## **Evolution = purposelessness**

Now get the class to consider these last quotations, leading up to the quotation from Psalm 94. If God had not given us eyes, we would not know what sight was, and would not understand that he can see us 'He who planted the ear, does he not hear? He who formed the eye, does he not see?' (verse 9, ESV).

## **Relevance to our lives**

We have considered this point before, but it is important for all of us to realise that we can really only have any purpose in life, or reason for existing, if there is something beyond our 'threescore years and ten'.

## **Prayer**

Dear Lord God, thank you for the gift of sight, and for the realisation it gives us that you can see. We know that you see everything that we do and pray that in turn we may learn to see you, and to be aware of your presence. Through Jesus Christ our Lord, Amen.

## **Other suggestions for activities**

1. Get the young people to ponder the fact that we have two eyes, and that each of them sees a slightly different image. Our brain merges the two, with the result that we can see perspective - a depth of vision. In the same way, when we come to consider the greater truths of life, and in particular the word of God, we sometimes see differing points of view expressed, which may apparently conflict. We should realise that we are meant to find understanding so that we can put these things into perspective and resolve them into a single truth which has greater depth.
2. The young people may be able to suggest their own 'Wonders of Creation' that are very complex and could not have evolved. You may like to consider bees, or an ant colony, or the way in which animals and plants are dependent on each other.