

What is colour?

Philosophy Smash with Henry!

Lesson plan

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Introduction for teachers.

This is a discussion of a topic in the philosophy of perception. It focusses on some of the questions around colours, and how we view colour.

It can be used for lessons in Philosophy, Science, and Biology, or lunchtime philosophy clubs. The lesson is intended to promote discussion about the nature of colour, and the difference between human colour perception and the way that animals see the world. It's primarily aimed at ages 9-13 (KS 2-3), but is also suitable for older age groups.

The lesson is designed to be used with the help of the *Philosophy Smash with Henry!* video on the same topic. It's also meant to be used with the handout (the video and handout are available at the website above).

The lesson will take about 60-90 minutes, but this will vary depending on the age and ability of your class.

Learning Outcomes.

Emerging:

Appreciate and explain the ways in which colour poses a philosophical (as well as a scientific) question.

Expected:

Engage in a sophisticated philosophical discussion.

Be respectful of other views, and recognise alternative ways of looking at philosophical questions, whilst at the same time supporting one's own view with evidence and/or argument.

Explain some of the different views about what colour is.

Exceeding:



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Using the information provided, give a view on what colour is, and back up this opinion with a reasoned argument and/or concrete examples from everyday life.

Ground Rules.

Start by setting some ground rules for discussion. These can be varied based on the style and ability of the group, but they might include:

- 1) Remember to always be respectful of other people's opinions. Everyone's opinion is equally valuable.
- 2) You can give your own beliefs and opinions if you like, but you don't have to. If you don't have an opinion on the question, then just think about what a sensible opinion might be, and think about why someone might hold that.
- 3) Try not to just give 'yes' or 'no' answers, remember always to back up your opinions with reasons and arguments.
- 4) It's fine to disagree with other people!
- 5) It's fine to change your mind! Changing your mind when someone else makes a good point is a sign of maturity and a good philosophical brain.

Sentence stems:

Depending on the ability and age of your group, you may like to use the following sentence stems to encourage children to think:

Questions:

'Why do people think...? '

'Does anyone disagree that....?'

'Do people from other cultures think that....?'

Statement of views:

'I think that... because...'

'One view I think is wrong is ... because ...'

'Someone else might think ...because ...'

'Someone in my group thinks ..., but I think that ...'

'It's difficult to know the answer to this question because....'

'I think there's another sensible view, which is...'

'In order to answer this question, we would need to know....'



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Changing your mind:

‘On reflection, I’ve now realised that...’

‘At the beginning, I believed...., but now I’m not sure. I now think that...’

‘I’m not sure about... because....’

Teaching Activities.

There is one teaching activity associated with this topic: a discussion of three different views of colour. It is intended to be used with the *Philosophy Smash with Henry!* video ‘What is colour?’, the activity sheet for the topic, and the handout for the topic. These are available at the website on p.1 of this lesson plan.

The video that goes with this lesson plan is an interview between a presenter (Henry) and an expert in the philosophy of colour. The expert is Laura Gow, a philosopher at the University of Liverpool.

Preparation

Start off by watching the first few minutes of the video, until Henry says ‘take a second and decide what you think’. There will then follow a cartoon, and the ‘what do you think?’ slogan. Pause the video there.

Do a round of Q and A to ensure that the class understands the basic issue. The issue that children should grasp is ‘the problem of colour’ and is summarised in the box below.

The problem of colour.

We usually think that colours exist ‘in the objects’ out there in the world: the *grass* is green, the *sky* is blue, and the *fire engine* is red.

But this runs into three problems:

- First, different people might see colours differently
- Second, colours can be different depending on what the light is like.
- Third, different species of animal see colours differently.

For this reason, lots of people think that colours do not exist out there in the world at all, but are ‘created’ by our brains.

When you are confident the class understands, watch the rest of the video, including the 45 second summary of the issue by Laura, subsequent discussion, and final thought.



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Teaching activity: three different views of colour.

Distribute the handout to the class. The handout is available at the website linked on p.1 of this lesson plan. The handout reminds the class of the core points of the video, in case they have forgotten, or if they naturally learn better with a mixture of written and visual/auditory materials.

Give the class time to look over the handout, and do another round of Q and A to make sure they understand the ideas.

Then, distribute the ‘three different views of colour’ activity sheet to the class. This contains summaries of the three views of colour that Laura summarised in her video. The text of the activity sheet is below, for reference.

This activity should be used with the ‘What is colour?’ video, available at the website above.

Break off into small groups. Read the three views in the box below. Which one do you think is right? As a group, decide what you think, and give reasons for your opinions.

Other people might see colours differently from each other. And we know that other animals (like dogs or bees) see colour differently. So what is colour?

We know that other animals (like dogs or bees) see colour differently. So what is colour?

Three views of colour:

- 1) Objects have colours. The grass is green, the fire engine is red, and the sky is blue.

The fire engine might look red to me, but it looks very different to a dog or a bee. Different species of animals see colours differently, but they're wrong. Only the human way of seeing colour is correct.

- 2) Objects have a lot more colours than we realise.

The fire engine might look red to me, but it looks very different to a dog or a bee. It has all of those colours, all at once.

- 3) Objects don't have colours at all. Colours are made up by our brains.



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The fire engine might look red to me, but it looks very different to a dog or a bee. This is because objects reflect light in different ways, that light enters our eyes, and our brains 'make up' the colours of things. The fire engine isn't really red, and grass isn't really green, and the sky isn't really blue. It's just our brains making up these colours to help us understand the world.

Break the class off into small groups. We find that groups of three or four work best, because there's less chance of two children just having completely opposed opinions and making very little headway. Get the children to discuss what they think colour is, and which of the three views (if any of them!) they like.

Remember to encourage them to support their opinions with reasons and arguments. Also encourage children to give reasons *against* the views they disagree with (or even against their own view!).

After discussion, collect the opinions of the different groups. You may find it helpful to write the main views on a whiteboard, so that you can refer back to it later during discussion.

Additional resources

This is a nice article about animal colour vision. It might be too advanced for your class, but will give teachers a nice point of reference when thinking about the wider context of the discussion:

<https://theconversation.com/animals-see-the-world-in-different-colours-than-humans-new-camera-reveals-what-this-looks-like-221786>

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