

An Experiment on a Bird in the Air Pump – Joseph Wright of Derby (1768; National Gallery)

www.nationalgallery.org.uk/paintings/joseph-wright-of-derby-an-experiment-on-a-bird-in-the-air-pump



- How is this group of people connected to each other and what are they doing? **They are part of a family. We can see a grandfather, father, sons and daughters. They are gathered round a table to look at something.**
- Are any of the characters not part of the family? How do they look different to everyone else? **The man with messy hair in the red gown stands out. He appears to be doing something that everyone else is looking at (or meant to be looking at). He is also staring directly at us.**
- Who do you think he is and what might he be doing? **He is a scientist, or, as he would have been referred to when this was painted over 250 years ago, a “natural philosopher.” If a rich family like this wanted to learn about an aspect of science they might employ someone like this to perform an experiment. They could not just do a search on YouTube back then!**
- What do you think the experiment is trying to show? **If you look closely at the glass jar next to the scientist’s head you can just about see a bird in it. It does not look like it is doing well. In**



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fact it looks like it is about to die. It desperately needs something that the scientist has removed from the jar. What has he removed? Air. The experiment is to show how we need to breath oxygen to live. The handle on the jar's wooden stand has been turned to suck out the oxygen. The bird is spluttering and choking and about to breathe its last breath.

- How does the artist add to the drama with the use of dark and light? **The strong contrast between light and dark in this painting (the fancy art word for this is "chiaroscuro") makes it look very dramatic.**
- What do you think is in the glass jar on the table, in front of the candle? **No one knows the answer. It could be a skull or a brain. But maybe it is a lung or pair of lungs. This would tie in with the experiment being about the necessity of breathing. The artist, Joseph Wright, was an asthma sufferer so he knew better than most people how important this was – and it is of course something in the news a lot at the moment.**
- Everyone in the room has a different reaction to watching the experiment. Choose one person and describe what they are feeling or saying:
 - **The two young girls are really upset. The older one cannot bear to look and has covered her face. Perhaps the bird is her pet. Her younger sister clings on to her showing that she is unsure too but is brave enough to take a peek.**
 - **Their father is either trying to console his older daughter or instructing her to look at an important educational demonstration.**
 - **The old man, seated on the right, is also not looking at the bird. The sight of something dying might be making him think of his old age and the approaching end of his life.**
 - **The boy and man seated on the left of the painting are eagerly watching what's going on. Back then because they were male they would be expected to be interested in this kind of thing and would have had more access to education than girls. The older one, perhaps the brother of the man or his oldest son, has been given the job of timing how long the bird can last without oxygen and is holding a watch.**
 - **The man and woman on the left seem more interested in looking at each other than the experiment!**
- Do you think the bird is going to live or die? **We will never know of course but there are some possible clues to show that the bird will live: The man's hand is poised to possibly lift out the jar's stopper. Maybe he will let the air back in just in time. Plus, the boy on the right of the painting, who is possibly the scientist's assistant, looks as if he is about to bring down the birdcage, suggesting the bird will need its cage again. Also, it seems strange to think that the scientist would charge people for him to come to their house and then he would kill their rare, exotic cockatoo!**

Follow on ideas

- Imagine you are the scientist. Create a leaflet or flyer to advertise your work. Think about what words and images would be eye-catching. Perhaps play down the potential to kill your clients' pets.
- Print a copy of the painting and stick on and fill in speech or thought bubbles for each character, depending on whether you think they are speaking or thinking.



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- Life in Lockdown discussion: The scientist in this painting is performing an experiment. What kind of experiments and research do you think scientists are conducting at the moment to help fight Coronavirus?

Topic Links

- Science/Discoveries
- Childhood/Change
- Animals