

Is Space Exploration a Waste of Resources?

The question of whether space exploration is worth the gargantuan costs has been around since we first took off from Earth. It helps pupils explore concepts of need, priority and inspiration, among many others.



Begin by getting pupils in pairs and getting them to debate some playful starting questions:

- Which would be the better planet to visit? (Get them call out two examples)
- Is it a good idea to send tourists to the moon? Support with a news headline from the internet, such as this one:

<http://www.bbc.co.uk/news/science-environment-39111030>

Next, play 'Cosmic Voyage' – narrated by Morgan Freeman, up the point at which we reach the edge of the known-universe: <https://youtu.be/gxXf7AJZ73A>. You might want to add a few questions as you go, for example, at the point we reach the edge, what we can see are not stars, as some pupils may think, but galaxies: each holding over 100 billion stars.



Attached is a letter for the pupils, from the Education Department of the government. For added drama, you might want to ask a colleague to come in with just as the video finishes.

Once you've read the letter, some contextual information might help pupils with their thinking:

- The UK space budget – over £300m per/year, makes up roughly 0.04% of the budget
- It supports 68,000 jobs, hoping to increase to 100,000 by 2030

It's generally best to keep specifics to a minimum – otherwise pupils can get bogged down by all the different factors. Like any debate, it won't be fully informed with all the facts and figures, but an investigation of the principle of spending money on space exploration is incredibly worthwhile. The independent Oxford student newspaper, Cherwell, did a good job at giving an overview of how each side can be debated without being held back by lack of nitty-gritty details:

<http://www.cherwell.org/2014/11/07/debate-is-space-exploration-a-waste-of-resources/>



The discussion could touch on many themes – from priorities, to need, to inspiration and the human condition. You might need to take a decision as a class to focus on a particular line of enquiry. For example, when I last facilitated this, one pupil suggested we should cut back spending on entertainment devices, and put that money towards more worthwhile causes, and we looked at this as an alternative to cutting space-spending.

Potential questions that may arise:

- Is space exploration a waste of resources
- Should we take money from space exploration to put into our society?
- If we do save money, what should be given priority?
- Will we ever stop exploring space?
- Would it be OK to leave earth behind, if we found somewhere better?

NEXT STEPS

Set pupils the task of thinking about this question next time there is a clear night. Gazing up at the stars, does their perspective change?



Department of Education
London

Dear pupils,

We hear you have been studying space recently. It's a fascinating topic, and a very important part of the school curriculum. No doubt you've been reading about the solar system, planets, stars, maybe even black holes. As a human race we've discovered a huge amount so far, and lots of it ends up in your books. And as you probably know, we are nowhere near done – there's still so much to find out.

...But we're thinking of putting the brakes on things. Space Exploration is an expensive business – it costs millions of pounds per year to keep exploring space, over £300million per year, in fact. This is money we feel might be better spent here on Earth – helping overcoming our problems, like global warming, healthcare nutrition, and education. £300million could pay for thousand more nurses for our hospitals, or provide food for children living in starvation, or help create hundreds of new schools for socially deprived areas.

But some people say we need to keep exploring space to inspire people to reach new heights. Some people find it as part of what it means to be human – to explore, to discover, and push the boundaries.

You are the future of this country, so we want your opinion. Stop exploring space and what's in the textbooks will stay the same for now and that's as close as you'll get to space. But at the same time, you might see big improvements on your own planet. What do you think?

Yours faithfully,

Minister for Education,
Department of Education