

### Introduction

This lesson explores one of the most well known of American conspiracy theories, the suggestion that man never really walked on the Moon. Pupils carry out an evaluation of photographic evidence from the archives of NASA. They become familiar with some of the common fake theories proposed by conspiracy theorists, and match them to common sense explanations that support the authenticity of the photographs. This evidential lesson can be delivered at any point in the KS3 Programme of Study to suit and appeal to a range of abilities. It can be taught as single lesson or as part of a series on space travel, which makes an interesting 'World Study After 1900'. Differentiation by task and support will enable pupils to evaluate and identify evidence at a level appropriate to their ability. Pupils will also be given ideas about how to access evidence independently in order to further their research.

### Running the activities

Provide a brief recap/outline of the Cold War Space Race. Include the determination of the United States to "catch up" with the Soviets, following the first man in space, by putting a man on the moon. This establishes a motive for the American government to lie about their missions to the Moon.

Pupils should work in pairs or small groups. Give each group a set of moon photographs and ask them to try to spot features that may hint that the pictures are not genuine. They should note down their ideas simply. Alternatively, brainstorm these suggestions as a class using the photographs on OHT. Give each group one or more *Fake Theories* cards and ask them to point out the controversial features of the pictures.

Discuss or report back on the theories in groups or as whole class. Ask pupils to make an initial judgement on the authenticity of the evidence. Give out the *Explanations* cards and ask pupils to match them up to the *Fake Theories*. Pupils should consider whether their views of the photographic evidence change in light of the proposed explanations.

Ask whether photographic evidence of American moon missions constitutes proof that the missions took place. Pupils should identify the need to find corroborating evidence. Ask pupils to brainstorm other types of evidence they could examine to establish that the missions took place. Talk pupils through the *Four Reasons to Believe* sheet, or ask pupils to summarise the convincing evidence that the missions were real.

### More ideas

- The lesson may be used as a basis for extended writing e.g. a report on the credibility of the moon photographs. Appropriately differentiated writing frames will give structure to pupils' work.
- Pupils could present their findings in the form of a seminar and, perhaps, structure their ideas coherently to present one or other case for a class debate.
- There are plenty of opportunities for additional research on Moon missions. Ask pupils to write a chronology of moon missions or name all the astronauts who walked on the moon.
- Compile a short list of websites for pupil research of the issues.

### Learning outcomes

- Evaluation of evidence.
- Understanding of the need for corroboration of evidence.
- Possible independent identification of additional sources of evidence through extension activities (see *More ideas*)

### Prior learning

Background knowledge of competition between the US and USSR over space.

### Where the activity fits in

History knowledge, skills and understanding:  
Historical Enquiry (4a&b)  
A 'World Study After 1900'

### Skills

The lesson draws on skills of historical enquiry, providing pupils with opportunities to evaluate evidence and independently identify additional sources of information.

## Introduction

Pupils learn about the US/Soviet Space Race by playing a board game. The lesson draws on pupils' skills of chronology to build a historical narrative. Pupils use their knowledge and understanding of the Space Race to explain factors that promote or militate against progress in science.

This activity may be taught as a single lesson, perhaps as an example of Cold War tension, or as part of a series on space travel, which makes an interesting 'World Study After 1900'. The lesson can be differentiated according to pupils' ability. The *Space Race Game* is most suited to pupils of lower ability levels, with weaker chronology skills. The game and chronology task form a core exercise. Structured discussion of the game and differentiation of questions arising from it will enable pupils to respond at a level appropriate to their ability.

## Running the activities

Introduce the Space Race with a picture of Verner Von Braun's V2 rocket, provided on the diagram sheet V1 & V2. Explain that at the end of WW2 both the USA and USSR were determined to take possession of this rocket and the scientists who invented it, and that both sides were concerned about missile development as well as the Space Race.

Pupils should play the *Space Race Game* in pairs, one representing the USSR, the other the USA. The aim is for pupils to collect all their country's cards, and produce a chronological narrative of the Space Race. As pupils move around the board they gain or lose cards depending on the squares they land on. The game should be played until both pupils have gained a full set of cards and ordered them correctly. A summary sheets of the cards is provided, with spaces for pupils to extend the chronology (see *More Ideas*).

As a whole class or in groups, pupils should consider the significance of events during the Space Race and try to answer the question 'What did they stand to gain and who won?' They should also reflect on the factors that influence progress in science, and their relevance to the Space Race.

## More ideas

- The lesson can be used as a basis for extended writing e.g. a newspaper article celebrating one side's victory in the Space Race. Appropriately differentiated writing frames will give structure to pupils' work.
- Pupils could explore the links between the events/factors on the chronology cards and their relative significance to the Space Race. For example, sorting the cards into categories (finance, genius etc.) and/or evaluating the significance of some events by removing the card from the chronology to assess the impact.
- Pupils could present their findings in the form of a news broadcast.
- Additional research opportunities include adding to the Space Race chronology, finding out about individuals such as Von Braun who have made significant contributions to science or exploring the funding of medical research.

## Learning outcomes

- Knowledge and understanding of the events of the Space Race.
- Knowledge and understanding of factors which influence progress in science.
- Consideration of the significance of events studied.

## Prior learning

Background knowledge of ideological differences between the USSR and the USA (KS3 Year9).

## Where the activity fits in

History knowledge, skills and understanding:

Knowledge and understanding of events people and changes in the past (2c&e)

A 'World Study After 1900'

## Skills

- Development of chronology skills
- Evaluation of motivation

### Introduction

This lesson examines the role played by the Nazi regime in developing rocket technology. Pupils examine the technical specifications of German V weapons and consider similarities and differences to more contemporary space rockets. They also use sources of evidence to identify the motivation of both the individuals who designed and built V weapons, and the Nazi leaders who sponsored their development. The lesson can be taught as part a wider study of the Second World War or as part of a series on space travel, which makes an interesting World Study after 1900.

This lesson can be taught to Year 7-9 pupils of all ability levels. Differentiation of tasks and teacher exposition will enable pupils to reach conclusions and handle evidence at a level appropriate to their ability. The writing frame could be simplified for less able pupils.

### Running the activities

Introduce the activity with any available photographs or video footage showing the results of allied bombing raids on Germany, to establish the Nazi motive for developing 'Vengeance' weapons. The Imperial War Museum website is a useful source of information <http://www.iwm.org.uk/>. The site also includes specific information regarding technical dimensions of 'Vengeance' weapons.

In pairs or groups, ask pupils to read the *Vengeance Weapons* information sheet and to consider their similarity to modern space rockets. Pupils should record their findings by annotating the diagram sheet *V1 and V2*. They should conclude that the V2 was indeed an embryonic space rocket. A completed version of the diagram sheet is provided for use as an OHT summary if required.

As a whole class, use *Who was responsible for the V2?* and other available sources to identify the motivation of both the rockets' designers and the Nazi sponsors. Pupils may reflect on the dilemma faced by rocket scientists required to build weapons by their political leaders.

In the final stage of the lesson pupils should produce a piece of discursive writing explaining the extent to which the Nazis can be said to be responsible for inventing the technology required for space travel. A writing frame may be used to provide structure to pupils' writing.

### More ideas

- As an alternative to extended writing, provide pupils with a number of different verdicts on the questions 'To what extent did the Nazis make space travel possible?', 'Was this intentional?' Pupils should select the verdict they agree with, and support their decision with evidence from the sources.
- Hot seating could be used to develop pupils' thoughts on the dilemma that faced scientist like Wernher von Braun.
- Research, e.g. using the Internet, on Von Braun's political and scientific ideas (was he a Nazi?)

### Learning outcomes

- Consider similarities between V weapons and modern space rockets.
- Use sources to identify motivation of individuals.
- Produce extended writing to communicate knowledge and understanding of history.

### Prior learning

Background knowledge of Second World War.

### Where the activity fits in

History knowledge, skills and understanding:  
Knowledge and Understanding  
Historical enquiry  
A 'World Study After 1900'

### Skills

- Continuity and change
- Empathy (in recognising the dilemmas of scientific research)