

## OPERATION PENGUIN: Teachers' Notes

This is an exciting, interactive and fun 'spy-themed' lesson, aimed at pupils aged 7-11, which celebrates the release of the film *Penguins of Madagascar*. Pupils will take on the role of secret agents and embark on one of four missions. In order to enhance the experience, wherever possible, you should assume the role of 'Chief Agent', act in a secretive, furtive manner, and generally play-along with the theme. Timings for the mission phases are suggested, but can be altered to meet the needs of the class, and Operation Penguin could be extended to run beyond a single lesson.

### Resources Provided

PowerPoint  
4 x Mission Activities:

- Mission 1: Seize Skipper
- Mission 2: Classified Kowalski
- Mission 3: Recon Rico
- Mission 4: Prisoner Private

Mission map poster  
Mission Clues (Optional – at the end of the Teachers' Notes)  
Mini-Missions take-home leaflet

### Resources

- Split pins or paper clips
- Scissors
- Atlases, reference books or access to the Internet

### Mission Briefing (5mins)

Begin by setting the 'special agent' scene by ensuring that there are no unauthorised personnel in the room, securing all entry points, and assuming your Chief Agent persona.

### Introduction

Using the PowerPoint, provided, watch the film trailer, which sets the scene of the story, followed by the specially-provided mission briefing video, in which one of the characters, Skipper, asks for the class' help in rescuing them from Dr Octavius Brine.

Explain to pupils that they need to find the location of Dr Octavius Brine's hideout, which is somewhere on the map shown. The mission will be achieved when they work out which cities the penguins are hidden in, and find the coordinates of the hideout.

Divide the pupils into four special agent teams and provide each team with copies of their mission activity. Pupils can work in pairs, with any number of pairs completing the same mission. Each mission follows the same series of phases.

NB – Alternatively, you may choose to ask the whole class to work through each of the four missions. This would extend the duration of the activity and could be completed over several days, or an entire afternoon.



**Phase 1  
(5mins)**

Pupils read the character profile in order to gather background information on the penguin that they will be rescuing. If pupils have access to the Internet, further images and sound clips are available at; [madagascar.dreamworks.com/characters/](http://madagascar.dreamworks.com/characters/)

Ask pupils to give a brief description of their penguin by summarising the information in their activity. Remember to maintain the secret agent role-play, referring to pupils by their 'agent names'!

**Extension Idea:** Ask pupils to write their own 'Special Agent Profiles'.

**Phase 2  
(20mins)**

**Location Search**

In phase 2, pupils are given a series of 5 clues about the possible location of their penguin. These clues will enable pupils to work out where their penguin could be located, using atlases and the Internet. Each clue could refer to several different countries, and so pupils will need to compile a shortlist of possible answers using evidence from each clue in turn. Once they have identified the country they should also try to name the city. Ensure that pupils understand that they may not be able to definitively identify the city at this stage.

After approximately 15 minutes, stop the pupils to provide them with some 'new intelligence' which will help them to come up with a final answer. For maximum impact, try to make the addition of this information appear 'just in'; you could ask a colleague to rush into class with an urgent message, or arrange a mysterious phone-call to the class!

**Mission 1: City is divided by the River Liffey**

**Mission 2: Kowalski was recently transported by gondola**

**Mission 3: The Olympic Games will be held here in 2016**

**Mission 4: City is the capital of North Rhine-Westphalia (NRW)**

Allow an additional 5 minutes for teams to work out their final city names.

NB: At any point, you may wish to hand out additional Mission Clues to pupils who are finding the task especially challenging. Clue A will help pupils determine the country, and Clue B will help identify the city. Mission Clues are found at the end of these Teachers' Notes.

**Mission 1: Dublin (Ireland)**

**Mission 2: Venice (Italy)**

**Mission 3: Rio de Janeiro (Brazil)**

**Mission 4: Dusseldorf (Germany)**

Tell pupils that special agents will now be dispatched to rescue the penguins, but that they must now continue with the mission to locate Dr Octavius Brine's hideout.

**Phase 3  
(20mins)**

**Encryption**

Pupils should now follow the instructions in their activity in order to make a cipher wheel and use it to turn their city name into a series of symbols.

You may wish to demonstrate the assembly of the wheel using scissors and a split pin so that the small wheel is on top of the larger wheel and can rotate freely.

Once the wheels are assembled, pupils must be given a 'secret cipher key' which tells them where to line up the wheels prior to



encoding the name. Once again, this provides an opportunity to add some fun to the lesson; can you arrange to have the Head-teacher bring you the secret key in a sealed envelope, or plant the key in a hidden location in the classroom?!

Secret Cipher Key: Line up **▶** with letter G.

Pupils should now translate each letter of their city name into a symbol. Agents within the same team should check to make sure that they have the same answers.

**CITY NAME**

<b>D</b>	<b>U</b>	<b>B</b>	<b>L</b>	<b>I</b>	<b>N</b>
<b>\$</b>	<b>@</b>	<b>3</b>	<b>?</b>	<b>9</b>	<b>&lt;</b>

**CODE SYMBOL**

**CITY NAME**

<b>V</b>	<b>E</b>	<b>N</b>	<b>I</b>	<b>C</b>	<b>E</b>
<b>4</b>	<b>□</b>	<b>&lt;</b>	<b>9</b>	<b>6</b>	<b>□</b>

**CODE SYMBOL**

**CITY NAME**

<b>R</b>	<b>I</b>	<b>O</b>	<b>D</b>	<b>E</b>	<b>J</b>	<b>A</b>	<b>N</b>	<b>E</b>	<b>I</b>	<b>R</b>	<b>O</b>
<b>£</b>	<b>9</b>	<b>2</b>	<b>\$</b>	<b>□</b>	<b>▲</b>	<b>•</b>	<b>&lt;</b>	<b>□</b>	<b>9</b>	<b>£</b>	<b>2</b>

**CODE SYMBOL**

**CITY NAME**

<b>D</b>	<b>U</b>	<b>S</b>	<b>S</b>	<b>E</b>	<b>L</b>	<b>D</b>	<b>O</b>	<b>R</b>	<b>F</b>
<b>\$</b>	<b>@</b>	<b>8</b>	<b>8</b>	<b>□</b>	<b>?</b>	<b>\$</b>	<b>2</b>	<b>£</b>	<b>1</b>

**CODE SYMBOL**

**Extension Idea:** You can keep these cipher wheels for another time, and pupils could practise writing, encrypting and swapping secret messages. Remember that both sending and receiving agents will need to know the secret cipher key so that they both line up their wheels in the same place.

**Phase 4  
(10mins)**

Pupils now use their final set of instructions to turn their symbol code into an x and y coordinate. Again, teams should check that their answers are the same, and go back to check for any errors.

**Coordinates  
& Mission  
Accomplished**

- Mission 1: (6,1)
- Mission 2: (3,7)
- Mission 3: (1,3)
- Mission 4: (7,7)

Finally, one agent from each team should plot their coordinates on the map (PowerPoint, print-outs or poster) and join the points to form a cross, marking the hideout of Dr Octavius Brine.



You may wish to take this opportunity to review the use of coordinate grid references using the map provided.

Don't forget to go to [www.nationalschoolspartnership.com/penguinsofmadagascar\\_competition](http://www.nationalschoolspartnership.com/penguinsofmadagascar_competition) to complete the mission by entering your 8 coordinates in order to be in with a chance of winning some amazing prizes.

### Homework

Hand out Mini-Missions take-home activity leaflet.

### Curriculum Links

#### England: National Curriculum

##### Geography:

- Inspiring in pupils a curiosity and fascination about the world
- Interpreting a range of sources of geographical information, including maps
- Using grid references, symbols and key

##### Maths:

- NC Aims KS 2 – Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication.
- Year 4 Programme of Study: Pupils should be taught to describe coordinates on a 2D grid

#### Scotland: Curriculum for Excellence

##### Second Level

##### Social Studies: People, place and environment

- To extend my mental map and sense of place, I can interpret information from different types of maps and am beginning to locate key features within Scotland, UK, Europe or the wider world. **(SOC 2-14a)**

##### Mathematics

- I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid. **(MTH 2-18a)**

#### Northern Ireland Curriculum

##### Geography:

- Identify and use appropriate sources to gain information/data, for example, sources, such as, maps, atlases, selected websites etc.
- Use appropriate maps for different purposes, for example, local maps, country maps;
- Follow/give directions for routes on maps using 8 compass directions
- Draw and use maps at a variety of scales, using 4-figure grid references to identify and locate features
- Examine evidence and opinions from a range of sources, distinguish between fact and opinion, for example, researching information about life in another country
- Try out different ways to solve problems
- Demonstrate skills of working in a group

##### Maths:

- Explore and use a range of problem solving strategies
- Identify position from given coordinates
- Plot position
- Specify coordinates of a given point
- Recognise and use in practical situations, the four compass directions N, S, E, W. Appreciate “North” in relation to the classroom.



**Curriculum Links  
Continued...**

**National Curriculum for Wales**

**Key Stage 2 Mathematics Programme of Study in Wales**

**Develop numerical reasoning**

- Transfer mathematical skills to a variety of contexts and everyday situations
- Identify the appropriate steps and information needed to complete the task or reach a solution

**Using Number Skills**

- Find differences

**Using Measuring Skills**

- Use coordinates / grid references to specify location

**Key Stage 2 Geography for Wales**

**Locating places, environments and patterns**

Pupils should be given opportunities to:

- Identify and locate places and environments using globes, atlases, and maps, *e.g. use coordinates and four-figure references*
- Follow directions, estimate and calculate distances, *e.g. follow map and ground routes, calculate map-to-ground distances*

**Understanding places, environments and processes**

Pupils should be given opportunities to:

- Identify and describe natural and human features, *e.g. weather conditions, types of buildings*
- Identify similarities and differences to describe, compare and contrast places and environments



## Mission Clues: Support for Agents during Phase 2

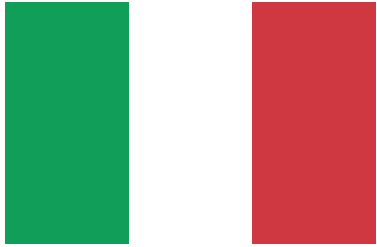
MISSION 1: CLUE A



MISSION 1: CLUE B  
ANAGRAM

**NUDLIB**

MISSION 2: CLUE A



MISSION 2: CLUE B



MISSION 3: CLUE A



MISSION 3: CLUE B



MISSION 4: CLUE A



MISSION 4: CLUE B  
ANAGRAM

**ROSDEFULDS**

