

## Lesson six: Hong Kong data challenge

### Lesson Plan

This lesson involves data and evidence-based activities. There will be some cross-curricular learning through maths activities involving larger numbers with a wow factor. The questions are related to the topic of last lesson, and reinforce the learning related to the human-induced and natural environmental challenges facing Hong Kong such as overfishing, pollution and flooding.

### Key Questions

- What are the major challenges facing Hong Kong? Are they man-made problems?
- Can you solve the data challenges related to the challenges facing Hong Kong?

### Key Ideas

- Hong Kong faces a range of challenges, including extreme weather, air pollution, sea water pollution, and waste management.
- The government and non-governmental organisations use data to assess the challenges facing a place. They use this information to prioritise the most serious challenges and introduce actions and policies to overcome them.

### Subject Content Areas

Place knowledge: Pupils learn about the challenges that face Hong Kong and the reasons why these challenges have come about.

Human and physical geography: pupils consider the environmental challenges facing Hong Kong and how these impact the people living there.

Geographical skills and fieldwork: This lesson will be application of number and data interpretation and representation which could support the development of numeracy and graphicacy skills. Pupils answer data challenges related to the challenges facing Hong Kong, to understand further the risk they pose to the people and the environment.

### Downloads

What are the challenges facing Hong Kong? (PPT)

Lesson Plan PDF | MSWORD

Hong Kong data challenge PDF | MSWORD

Hong Kong data challenge answer sheet PDF | MSWORD

### Additional resources

Calculators

Squared paper/ Maths books

Interactive Whiteboard/ blackboard/ flipchart

### Web links

To watch a short video showing Hong Kong's torrential rainfall episodes go to YouTube

[www.youtube.com/watch?v=nHzE\\_P2IVc8](http://www.youtube.com/watch?v=nHzE_P2IVc8)

To watch a second video showing the rainfall go to YouTube  
[www.youtube.com/watch?v=vUsJlAjxWbo](http://www.youtube.com/watch?v=vUsJlAjxWbo)

### **Learning Objective**

To answer questions using geographical data related to the human-induced and natural challenges facing Hong Kong.

### **Starter**

Review the main challenges facing Hong Kong, covered in the previous lesson by asking pupils to brainstorm and record these on the interactive whiteboard, sorting in to human-induced challenges and naturally-caused challenges.

### **Main Teaching**

Explain to the pupils that the government and non-governmental organisations assess the risk that different challenges pose to the people and environment through research and data collection.

Use the PowerPoint presentation images and key questions to explore the actions taken by the government to mitigate the challenges facing Hong Kong including the ban on fishing trawlers and building barriers to protect the hilly areas from landslides during heavy rainfall.

Play the video showing Hong Kong's extreme rainfall, go to YouTube  
[www.youtube.com/watch?v=nHzE\\_P2IVc8](http://www.youtube.com/watch?v=nHzE_P2IVc8)

- Ask pupils to note the risks that storms such as this can pose to people and places and then feedback their ideas.  
Pupils should come up with a range of ideas such: damage to market stalls and buildings, flooding in the street etc.
- Ask pupils to think of how people can protect themselves, local buildings and homes from storms.

### **Main Activity**

Explain to pupils that the key challenges facing Hong Kong that will be explored through maths questions in this lesson are:

- Temperature
- Rainfall
- Pollution and litter
- Over-fishing
- Waste management

Pupils work through a series of data challenges on the *Hong Kong data challenge* activity sheet (see downloadable resources). These questions are differentiated by stepped challenge. Pupils can use a calculator for some of the sums which involve larger numbers.

### **Extension**

Pupils who complete the activity early pair up and create data challenge questions for their partner to answer that are related to the challenges facing Hong Kong.

### **Plenary**

Pose the questions to initiate as a concluding discussion:

- Which challenge facing Hong Kong concerns you the most?
- Does the United Kingdom face any similar challenges to Hong Kong?

### **Further study**

Pupils can go to the WWF website to learn more about endangered species of the seas and oceans surround Hong Kong

<http://www.wwf.org.hk/en/whatwedo/conservation/species/chiwhitedolphin/>