

**The Chinese University of Hong Kong**  
**Jockey Club Museum of Climate Change**

Work Sheets for Secondary School Students (Abridged Version)

**Section 1: Polar Gallery**

1. Inspectors have conducted various studies during the voyage and in the Arctic Research District. After watching the video, name two of these studies and briefly describe their objectives.

Research 1: \_\_\_\_\_

Objectives: \_\_\_\_\_

Research 2: \_\_\_\_\_

Objectives: \_\_\_\_\_

2. How does climate change affect the food web in the Arctic region? Elaborate on the perspectives of sea ice melting, energy flow and biodiversity.

\_\_\_\_\_

\_\_\_\_\_

3. A student is revising his knowledge of climate change. Look at his notebook below. Help him to correct any mistakes in his notes.

	Key points
1.	Climate change is a long term phenomenon. What we see every day, we call 'weather'.
2.	Sea ice melting is one of the causes of the rise in global sea levels.
3.	The greenhouse effect is a man-made phenomenon.
4.	Climate change has both natural and artificial causes.
5.	The increase of temperature in the Arctic regions is slower than that in other regions of the world.
6.	Most of the world's fresh water reserve is stored in lakes.
7.	One research technique used by scientists is to drill ice cores in glaciers.
8.	Warmed sea water will expand and cause sea levels to rise.
9.	The concentration of atmospheric carbon dioxide is presently at a historically high level, well above its usual levels in the past 800,000 years.

## Section 2: Remote Sensing and Environmental Monitoring

4. Explain the relationship between permanent glacier retreat and freshwater supply.

---

---

5. Scientists use remote sensing and environmental monitoring technologies to monitor environmental variations. Describe one such variation, and explain how climate change has led to this phenomenon.

---

---

## Section 3: Research and Innovation at CUHK

6. Demand for housing in Hong Kong is high. Imagine that you are an architect who is planning a housing project. Taking into account the two urban climate models you see here, name two factors that you think can assist the city's sustainable development and briefly explain their advantages and disadvantages.

# Hints: Think about building density, construction materials, urban greening and public facilities.

I consider:

	Pros	Cons
Factor 1:		
Factor 2:		

7. Researchers are looking into the potential of solar energy and wind energy in Hong Kong. In the future, how can renewable energy be incorporated into our daily lives? What other kinds of renewable energy can be developed?

Be creative. Write down your ideas and explain how they could help to reduce our reliance on fossil fuels.

We could use renewable energy in the following areas:	I recommend that we should develop the following types of renewable energy:
1:	1:
2:	2:

**Section 4: The Hong Kong Jockey Club Green Gallery; Action Pledge Studio**

8. List three methods that we could adopt to reduce carbon emissions on campus.

(1) \_\_\_\_\_

(2) \_\_\_\_\_

(3) \_\_\_\_\_

9. Mr Chan has recently been elected as a Councillor for the North Pole District. During the election period and after the celebration party, the following materials are left over:

publicity banners  
 posters and leaflets  
 election T-shirts

Suggest a “green election” proposal to Mr Chan, so that he could reduce the quantity of waste that has to be disposed into landfill because of the election and the celebration party.

	publicity banners	posters and leaflets	election T-shirts
This is for:			
This is:	<input type="radio"/> Upcycling	<input type="radio"/> Upcycling	<input type="radio"/> Upcycling
	<input type="radio"/> Recycling	<input type="radio"/> Recycling	<input type="radio"/> Recycling

10. As you walked through this Climate Change Voyage, did you find anything to inspire you? After you finish the voyage, take a photo in the Action Pledge Studio and make a carbon reduction promise. You can obtain the photo through email, share it on social media and call on people to save the Earth together!

My promise is: \_\_\_\_\_

At home, I am willing to: \_\_\_\_\_

At school, I will: \_\_\_\_\_

I will encourage others to: \_\_\_\_\_