



中華電力 CLP Power

低碳能源教育中心

Low Carbon Energy Education Centre

Worksheet (Secondary School Version)

Name : _____ Class : _____ () Date: _____

A. Climate Change

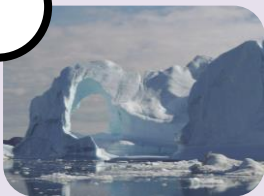
Climate change leads to the occurrence of natural hazards. What are you most afraid of?



More frequent and severe weather events



Rising sea level and flooding



Changing ecosystem and species extinction



Food and water shortages

In order to meet the energy demand while reducing our carbon emissions, we need to move away from _____ and adopt diversified low carbon energy sources.

B. Renewable Energy

Match the renewable energy sources with the corresponding natural resources and geographical condition it requires. (Can match with more than one item)

Solar Power



Hydro Power



Wind Power



Tidal Power



Enough supply of land



Plentiful sunshine



Sufficient wind resources



Adequate river resources

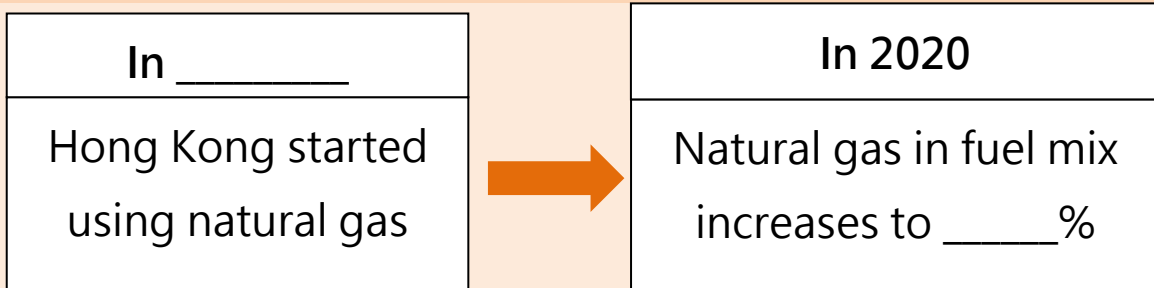


Coastal landscape which can store large amount of seawater

Which renewable energy is most commonly used in Hong Kong?

Can we only rely on renewable energy in Hong Kong? Why?

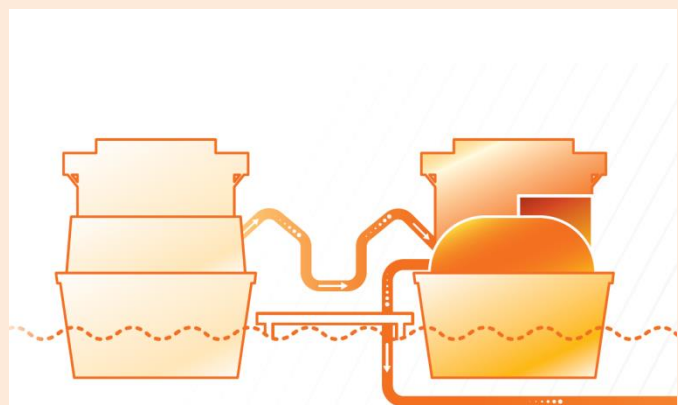
C. Natural Gas



How is the natural gas transported to Hong Kong?



Method 1



Method 2

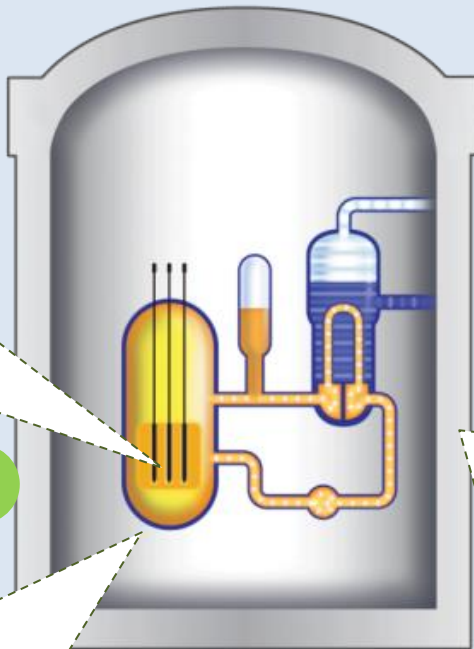
What are the advantages and disadvantages of setting up an offshore liquefied natural gas terminal in Hong Kong?

D. Nuclear Energy

Nuclear energy uses _____ as nuclear fuel. The heat released from the "_____ chain reaction" are used to generate electricity.

Safety Design in Daya Bay Nuclear Power Station: Three Leak-tight Barriers

3



Name: _____

1

Function:

Uranium fuel is sealed inside the _____

Name: _____

2

Function:

_____ mm thick steel wall keeps _____

within the primary coolant circuit.

Name: _____

Function:

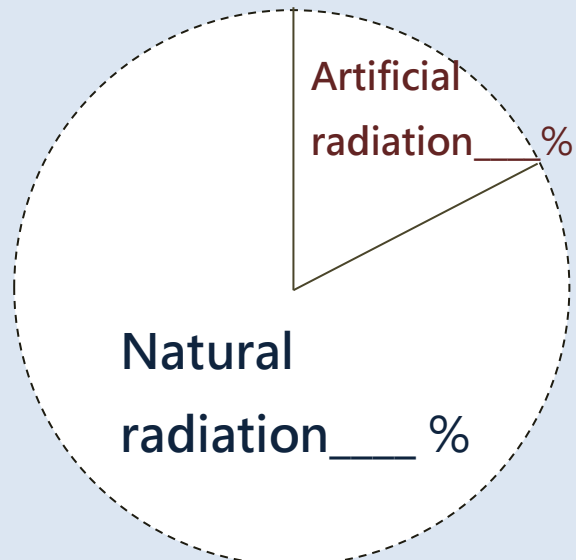
A _____ m-thick concrete structure with a 6mm-thick _____ houses the reactor pressure vessel. The containment building can withstand the impact of a _____.

Hints:

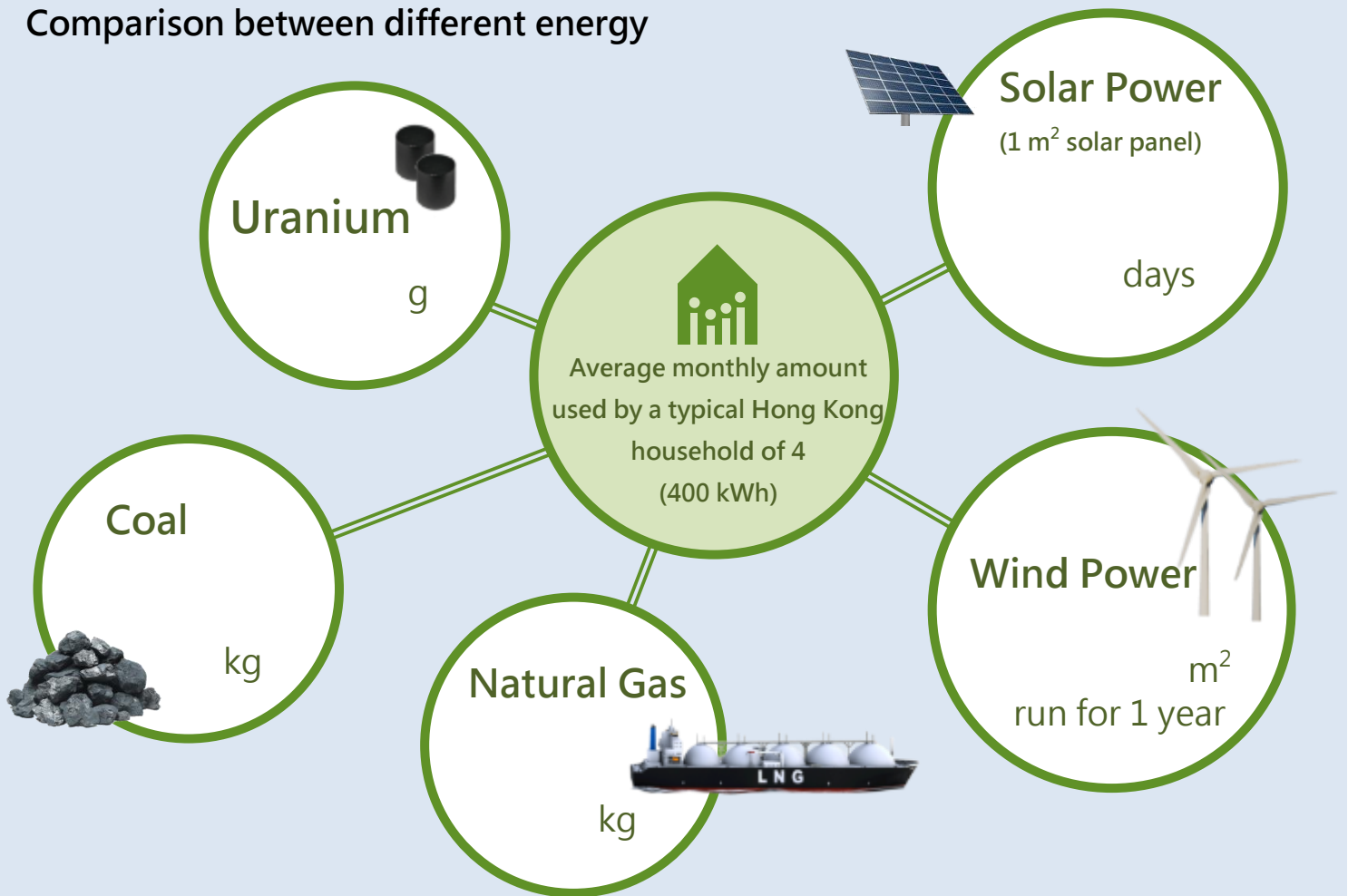
Containment Building	Reactor Pressure Vessel	large commercial aircraft	200
steel interior lining	Fuel Cladding	metal alloy cladding	900
cooling water containing minute amount of radioactive material			

Radiation and Daily Life

Sources of radiation in our daily life:



Comparison between different energy



What do you think is the main cause of Fukushima nuclear accident in 2011? If history can be rewritten, what could we do to prevent the accident from happening?

The Hong Kong SAR Government had formulated _____, which illustrated the measures Hong Kong needs to be taken when there is serious nuclear accident in Daya Bay.

Please list out 4 of the measures:

1. _____
2. _____
3. _____
4. _____

E. Future Development

Are you willing to change your behaviour in daily life to help mitigate the climate change? (✓ if yes)

Avoid over-consumption and being wasteful with resources	
Bring your own cutlery when order take-away food	
Turn off electric appliances that are not used	
Take public transportation instead of car and taxi	

In order to lower carbon emission, what can we do in our daily life?

If you were a government official of the Environment Bureau, what would you propose for Hong Kong's future fuel mix? How would you strike a balance between the cost, emission and reliability?
