

# Hong Kong HK \$10 Polymer Dollar

### Explanatory Notes for Teachers

Level: S3

Topic: Hong Kong HK\$10 Polymer Dollar

Supporting Teaching Materials: Students' worksheet

Leaflet from [http://www.info.gov.hk/hkma/eng/polymer/leaflet\\_polymer\\_eng.pdf](http://www.info.gov.hk/hkma/eng/polymer/leaflet_polymer_eng.pdf)

#### Students' Prior Knowledge

Before this ELA unit, students have learnt about features of old and new HK\$10 notes. They should have acquired relevant knowledge about the Hong Kong currency through the medium of Chinese.

#### Aims and Objectives

##### I. Content Objectives

After the ELA activities, students will be able to use English to:

1. make comparisons between paper notes and polymer notes;
2. describe the features of the notes; and
3. suggest whether or not polymer can be used for making other banknotes.

##### II. Language Objectives

After completing the ELA activities, students should be able to

1. understand and use the English terms related to this topic (e.g., *polymer, durable, security features, easily identified, concealed denomination, see-through picture, enlarged numeral, reflective band, shadow image, non-fibrous, non-porous*)
2. read and extract information from a text in English to complete comprehension questions, e.g.,
  - *The polymer note is made of a unique plastic film.*
  - *The polymer note is more durable because the material is non-porous and the structure of the notes does not easily break down.*
  - *Polymer is recyclable, so the notes are more environmentally-friendly.*
3. understand and use English expressions for making and justifying suggestions regarding the use of polymer for banknotes, e.g.,
  - *I suggest that the Government should use polymer for other bank notes because ...*
4. understand and use expressions for identifying similarities and differences, e.g.,
  - *The old notes are made of paper **while** the new notes are made of polymer.*
  - ***Both** old and new notes have the Bauhinia symbol.*
5. understand expressions for comparing and contrasting properties and attributes, e.g.,

- Polymer notes are **more durable than** paper notes.
  - *Paper notes are less environmentally friendly than polymer notes.*
6. construct a single paragraph summary of their responses to questions, following the teacher's guidelines on organisation and connectivity.

Procedure:

***Before the lesson***

*The teacher should:*

- *prepare a HK\$10 paper note and a polymer note;*
- *download or request the leaflet "Hong Kong HK\$10 Polymer Note" from the Hong Kong Monetary Authority.*

**Activity 1 – Compare and Contrast** – This activity invites students to make comparison between the two banknotes. Students look for specific characteristics and use a Venn diagram to tell the similarities and differences between them.

**Activity 2 – Reading Comprehension** – This activity engages students' reading comprehension. Students read the passage and answer the questions. Also, students will suggest whether or not polymer technology should be applied to other bank notes circulated in Hong Kong.

**Activity 3 – Writing** - This is a follow up to Activity 2 in which students are encouraged to put their answers to that activity together in a simple paragraph. The teacher should give feedback to students on the cohesion of their paragraphs – Is it well-organised? Does it use the appropriate tense? Are sentences well connected to form a coherent paragraph?

### Activity 1 - Compare and Contrast

Banknotes in Hong Kong are made of paper. In 2007, the Hong Kong Monetary Authority issued a new HK\$10 dollar note that was made of polymer. Not only is the new HK\$10 dollar note more durable, new security features are also used to make the note easier to identify.

**Compare a paper HK\$10 note and a polymer note. What are the differences?**

Characteristic	HK\$10 Paper Note	HK\$10 Polymer Note
Clear window		
See-through picture		
Concealed denomination		
Colour shift		
Enlarge Numeral		
Reflective band		
Numeral “10” shadow image		
Shadow of image of the Bauhinia Flower in the clear window		

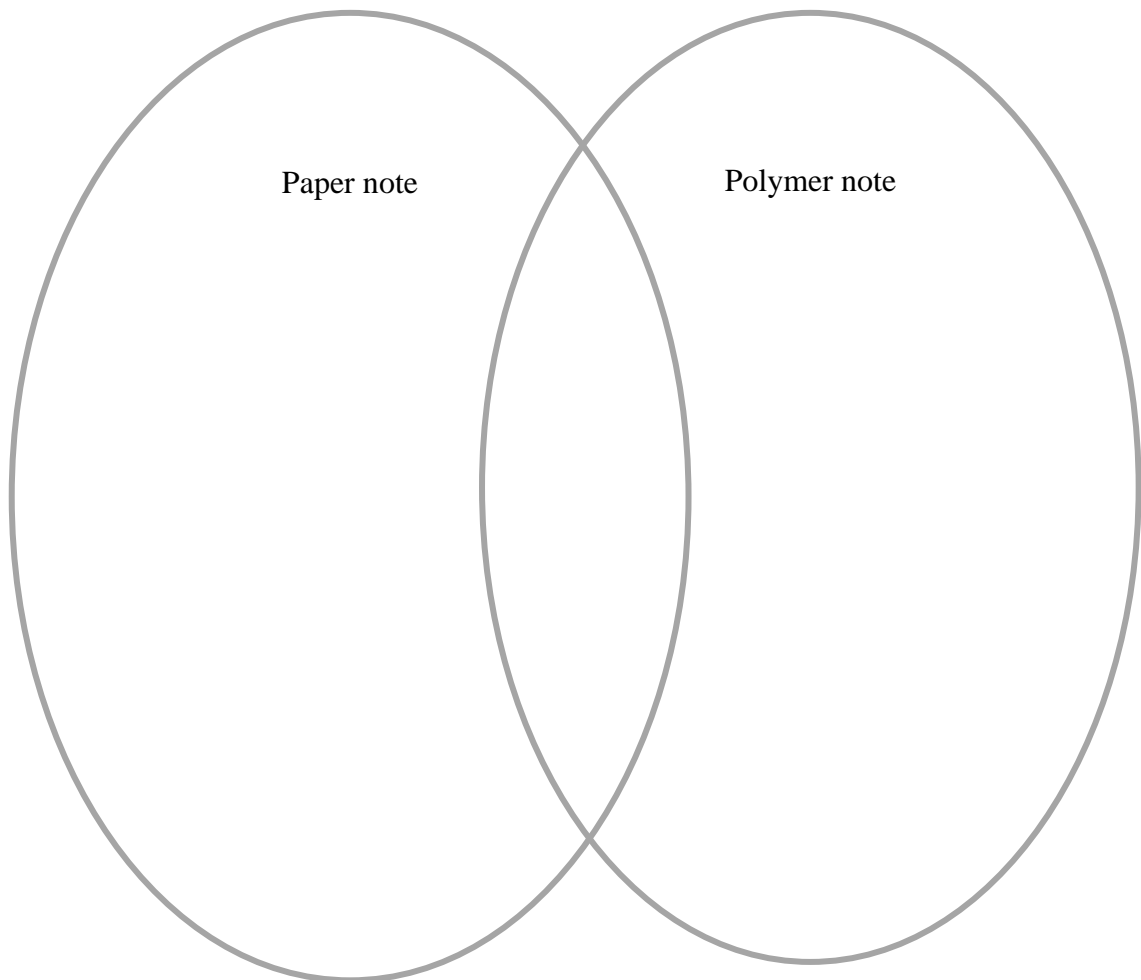
(sources:

[http://www.hkma.gov.hk/media/eng/doc/key-functions/monetary-stability/notes-and-coins/leaflet\\_polymer\\_eng.pdf](http://www.hkma.gov.hk/media/eng/doc/key-functions/monetary-stability/notes-and-coins/leaflet_polymer_eng.pdf))

**Can you use the Venn diagram to describe the similarities and differences?**

**The following expressions will help you:**

although while but and both



## Activity 2 – Reading (source from Hong Kong Monetary Authority)

*What are the key properties of polymer notes?*

*How are they different from paper notes?*

Polymer notes are printed on a unique plastic film manufactured solely for the printing of banknotes which is not commercially available. This material is non-fibrous and non-porous and polymer notes have a distinctly different feel to paper notes.

The key properties of polymer notes are:



- they do not absorb water or other liquids;
- the structure of the notes does not easily break down and the notes are difficult to tear;
- they perform well in a full range of climatic conditions.

*What are the benefits of polymer notes?*

Experience in countries that have introduced polymer notes suggests that they have the following benefits:

- Durability – they last a long time
- Security – polymer-specific security features are easy to see and help identify the note easily
- Cleanliness – they do not absorb dirt or moisture
- Environmental-friendliness – they are recyclable



Answer the following questions with the information from the passage above.

1. What is the material used for making the polymer notes?

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2. Is the material commonly used in the commercial sector?

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3. Why are the polymer notes more durable than the paper notes?

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4. Why are the polymer notes more environmentally friendly than the paper notes?

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5. Do you think that the government should issue \$50 or HK\$100 polymer banknotes?

Why?/Why not?

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### Activity 1 - Compare and Contrast

Banknotes in Hong Kong are made of paper. In 2007, the Hong Kong Monetary Authority issued a new HK\$10 dollar note that was made of polymer. Not only is the new HK\$10 dollar note more durable, new security features are also used to make the note easier to identify.

**Compare a paper HK\$10 note and a polymer note. What are the differences?**

Characteristic	HK\$10 Paper Note	HK\$10 Polymer Note
<b>Clear window</b>	<u>n/a</u>	<u>A see-through window with a numeral 10.</u>
<b>See-through picture</b>	<u>When the note is viewed against background light, the patterns on the front and back of the note align perfectly to show a complete picture of a horse.</u>	<u>The same feature as paper notes.</u>
<b>Concealed denomination</b>	<u>The numeral 10 appears when the note is tilted</u>	<u>The same feature as paper notes.</u>
<b>Colour shift</b>	<u>n/a</u>	<u>The colour of the ribbon on the clear window changes between pink and purple when the note is tilted or examined against light and dark backgrounds.</u>
<b>Enlarge Numeral</b>	<u>The numeral 10 has been enlarged and made easier to feel.</u>	<u>The same feature as paper notes.</u>
<b>Reflective band</b>	<u>A shimmering band showing images of the Bauhinia Flower and “HK10” when the note is tilted. This has been moved to the central part of the note.</u>	<u>The reflective band has been moved to the central part of the note.</u>
<b>Numeral “10” shadow image</b>	<u>n/a</u>	<u>A watermark-like image of the numeral 10 is visible when viewed against background light.</u>
<b>Shadow of image of the Bauhinia Flower in the clear window</b>	<u>n/a</u>	<u>A watermark-like image of the Bauhinia Flower integrated into the clear window.</u>

*(sources: Hong Kong Monetary Authority*

[http://www.hkma.gov.hk/media/eng/doc/key-functions/monetary-stability/notes-and-coins/leaflet\\_polymer\\_eng.pdf](http://www.hkma.gov.hk/media/eng/doc/key-functions/monetary-stability/notes-and-coins/leaflet_polymer_eng.pdf)

<http://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2007/20070312e3a.pdf>)

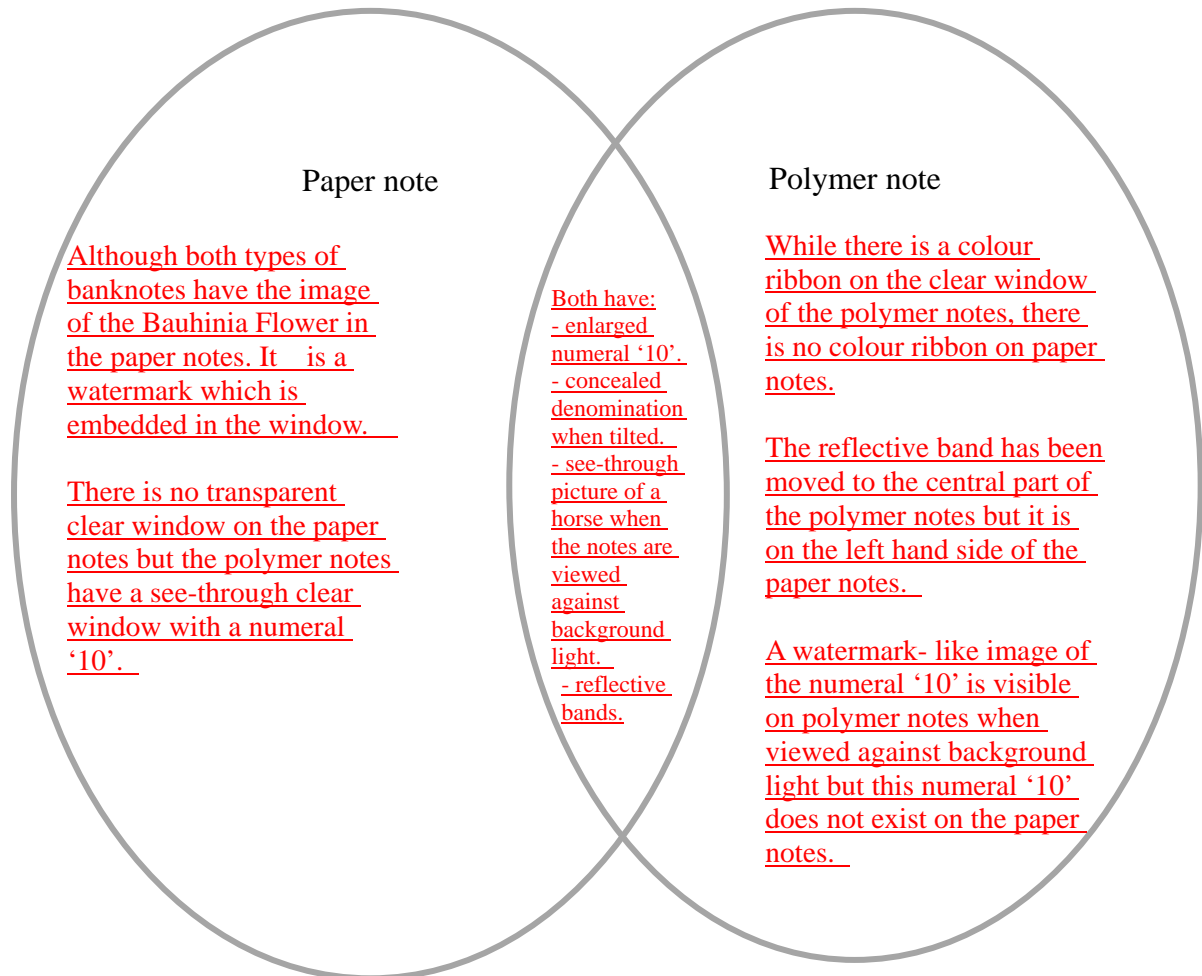




Can you use the Venn diagram to describe the similarities and differences?

The following expressions will help you:

although while but and both



**Activity 2 – Reading (source from Hong Kong Monetary Authority)**

*What are the key properties of polymer notes?*

*How are they different from paper notes?*

Polymer notes are printed on a unique plastic film manufactured solely for the printing of banknotes which is not commercially available. This material is non-fibrous and non-porous and polymer notes have a distinctly different feel to paper notes.

The key properties of polymer notes are:



- they do not absorb water or other liquids;
- the structure of the notes does not easily break down and the notes are difficult to tear;
- they perform well in a full range of climatic conditions.

*What are the benefits of polymer notes?*

Experience in countries that have introduced polymer notes suggests that they have the following benefits:

- i. Durability – they last a long time
- ii. Security – polymer-specific security features are easy to see and help identify the note easily
- iii. Cleanliness – they do not absorb dirt or moisture
- iv. Environmental-friendliness – they are recyclable



Answer the following questions with the information from the passage above.

1. What is the material used for making the polymer notes?

A non-fibrous and non-porous plastic is used for making the polymer notes.

2. Is the material commonly used in the commercial sector?

The material is not commonly used and it is manufactured solely for the printing of banknotes.

3. Why is the polymer note more durable than the paper notes?

The polymer notes are longer-lasting than the paper notes.

4. Why are the polymer notes more environmentally friendly than the paper notes?

The polymer notes are recyclable but paper notes are not.

5. Do you think that the government should issue \$50 or HK\$100 polymer banknotes?

Why?/Why not?

(Students' free responses)

### Activity 3

#### Writing

Using the answers to the questions you answered in Activity 2, construct a paragraph about the HK\$10 polymer note, giving your views on whether the government should issue polymer notes for other banknotes.

Write your paragraph below:

*(Suggested answers)*

The materials for producing paper notes and polymer notes are different. The paper HK\$10 banknotes are made of paper but the new HK\$10 notes are made of polymer which is a non-fibrous and non-porous plastic. However, this plastic is not commonly used and it is manufactured solely for the printing of banknotes.

The polymer notes are better than the paper banknotes. There are two reasons. Firstly, the polymer notes are longer-lasting than the paper notes. Secondly, the polymer notes are recyclable but paper notes are not. Therefore, I think the government should issue \$50 or HK\$100 polymer banknotes. If the banknotes are longer-lasting than the paper ones and can be recycled, they will be more environmentally friendly because it will not be necessary to issue large numbers of banknotes.

*(Students' free responses and any possible reasons)*