S1 Topic 5

Observing Animals and Using Keys

Level: S1

Topic: Observing an animal and sorting things into groups (Sections 2.2 & 2.4 of Unit 2)

Introduction:

This set of ELA materials consists of three ELAs. The first two are an extension of Section of 2.2, and the third one is an extension of Section 2.4 of Unit 2. After students have acquired the relevant English vocabulary for describing the external features, feeding habits, movement and habitats of some animals in the first two ELAs, they are expected to be able to follow the English descriptions in an identification key provided to identify a group of animals in the third ELA.

The three ELAs are

ELA1 Observing an Animal (1-3)

ELA2 Observing an Animal (4-5) & Revision

ELA3 Using Keys for Identification

Each ELA lasts for about a period.

ELA1 Lesson Plan – Observing an Animal (1-3)

• Description:

This lesson, Observing an Animal (1-3), is an extension of Section 2.2 – Observing an animal – in the CDC syllabus. In previous CMI lessons, students observed an animal, such as a grasshopper or a snail, in terms of its external features, feeding habits, movement, reactions to stimuli and habitat. In this lesson, they will observe three more animals – one invertebrate and two vertebrates – through slides and video clips.

ContentObjectives:

After completing the activity, students should be able to:

- identify the external features, feeding habits, movement and habitats of a panda, a crocodile and a crab through observing the pictures and videos of these animals; and
- identify other animals which share similar external features, habitats or other similar characteristics with a panda, a crocodile or a crab.
- LanguageObjectives:

After completing the activity, students be able to:

- understand and use the English terms for describing the animal types, external features, body parts, feeding habits, movement and habitats of a panda, a crocodile and a crab (e.g., vertebrate, invertebrate, head, mouth, eye, nose, leg, claw, tail, body, covered by, shell, scales, hair, meat-eaters, plant-eaters, food debris, movement, swim, walk, crawl, climb, habitat, rivers, wetlands, forests, panda, saltwater crocodile and crab); and
- describe the external features, feeding habits, movement and habitats of a panda, a crocodile and a crab in simple English, e.g.,
 - A panda is a vertebrate. Its body is covered with hair. It eats bamboo leaves. It has legs to walk and climb trees. Its habitat is a bamboo forest.
 - A saltwater crocodile is a vertebrate. Its body is covered with scales. It eats crabs, frogs, turtles, birds and other vertebrates. It uses its legs to crawl and swims. Its habitat is a river or wetland.
 - A fiddler crab is an invertebrate. Its body is covered by a shell. It eats food debris. It uses its legs to crawl. Its habitat is a wetland.

Activities:

Whole-class activities:-

- 1. Introduction (3 min)
- 2. Studying video clips and completing worksheets (27 min)
- 3. Revision (10 min)

Materials:

Slides containing pictures of the relevant animals, and URLs for the video clips of them; Worksheets *Observing an Animal* (1), (2) & (3)

Steps:

Introduction (3 min)

- 1. Tell students that they are going to study the slides and video clips of three animals which live in Ocean Park and Hong Kong Wetland Park.
- 2. Write on the board: Ocean Park; Hong Kong Wetland Park 香港濕地公園
- 3. You may explain briefly that wetland is a place where a river meets the sea.

Studying video clips and completing worksheets (25 min)

- 4. Distribute the worksheets, *Observing an Animal* (1), (2) & (3), to the class.
- 5. Show the slides and video clips of the pandas, Ying Ying and Le Le.
 - In the process, you may use questions to draw the class' attention to the body parts of Ying Ying and Le Le and the way they eat and move.
- 6. Briefly go through the questions of *Observing an Animal (1)* with the students to identify any difficult words.
- 7. Complete the worksheet with the students. Encourage them to provide the answers in Chinese if they do not know the English terms. You can then supply the answers in English.
- 8. Repeat Steps 5-7 for *Observing an Animal* (2) & (3).

Revision (10 min)

9. In the revision, you may group the vocabulary items under the following headings which are written on the blackboard.

Vocabulary for animals:

- 01. Types of animal
 - vertebrate/invertebrate
- 02. Body parts
 - head/mouth/eye/nose/
 - leg/claw/tail/
 - body covered by: shell/ scales/ hair

- 03. Types of food
 - meat-eaters: e.g., fish/ turtles/ birds
 - plant-eaters: e.g., bamboo leaves
 - food debris

04. Movement

 swim/ walk/ crawl/ climb trees

05. Habitats

- rivers
- wetlands
- forests

10.	may round up the revision by asking students to name some animals that fit the two criteria you give in each turn. For example, name an animal that is covered by dry scales and lives in a forest; name an animal that is covered by a shell and is a vertebrate.

Observing an Animal (1) - Panda

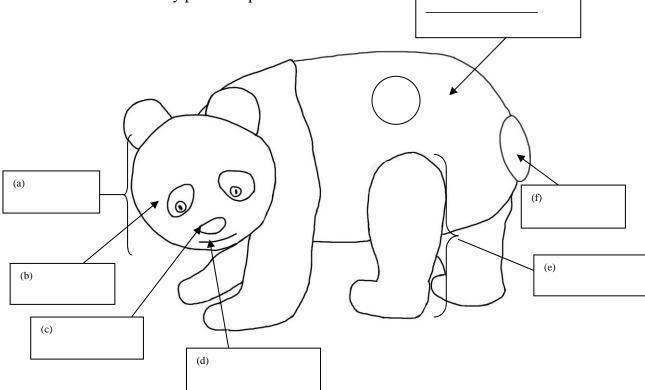
Study the video clips and the pictures of a panda. Then answer the following questions.

1. Is a panda a vertebrate or an invertebrate?

It is a/an _____.

2. What are the body parts of a panda?

(g) body covered with



3. What kind of food does a panda eat?

It eats _____

4. How does a panda move?

It uses legs to ______ on the ground or to _____ trees.

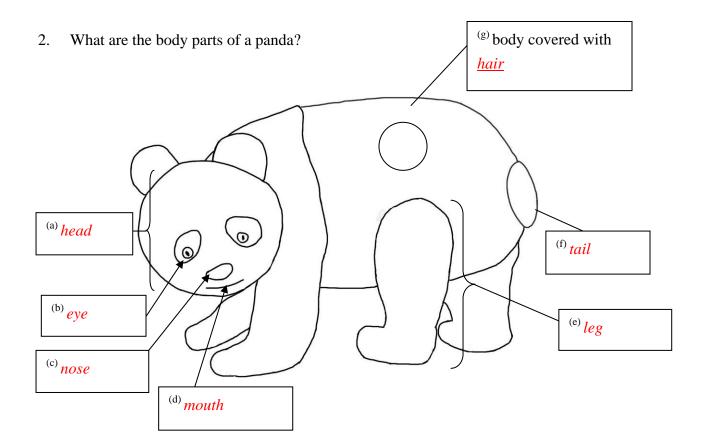
5. What is a panda's habitat (natural home)?

Observing an Animal (1) - Panda

Study the video clips and the pictures of a panda. Then answer the following questions.

1. Is a panda a vertebrate or an invertebrate?

It is a/an <u>vertebrate</u>.



3. What kind of food does a panda eat?

It eats **bamboo leaves**.

4. How does a panda move?

It uses legs to <u>walk</u> on the ground or to <u>climb</u> trees.

5. What is a panda's habitat (natural home)?

Its habitat is a bamboo forest.

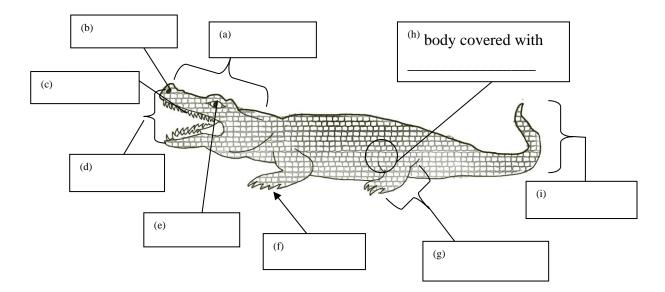
Observing an Animal (2) – Saltwater Crocodile (灣鱷)

Study the video clips and the pictures of a saltwater crocodile Pui Pui. Then answer the following questions.

1. Is a saltwater crocodile a vertebrate or an invertebrate?

It is a/an _____.

2. What are the body parts of a saltwater crocodile?



3. What kind of food does a saltwater crocodile eat?

4. How does a saltwater crocodile move?

It uses legs to _____ and to _____.

5. What is a saltwater crocodile's habitat (natural home)?

Answers

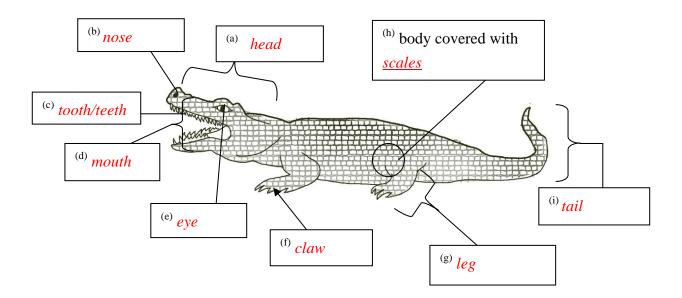
Observing an Animal (2) – Saltwater Crocodile (灣鱷)

Study the video clips and the pictures of a saltwater crocodile Pui Pui. Then answer the following questions.

1. Is a saltwater crocodile a vertebrate or an invertebrate?

It is a/an <u>vertebrate</u>.

2. What are the body parts of a saltwater crocodile?



3. What kind of food does a saltwater crocodile eat?

<u>It eats crabs, frogs turtles birds and other vertebrates.</u> (or any reasonable answer)

4. How does a saltwater crocodile move?

It uses legs to *crawl* and to *swim*.

5. What is a saltwater crocodile's habitat (natural home)?

Its habitat is a river or wetland.

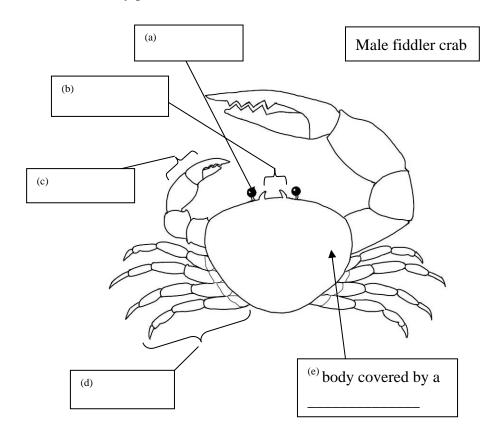
Observing an Animal (3) - Fiddler Crab 招潮蟹

Study the video clips and the pictures of male and female fiddler crabs. Then answer the following questions.

1.	Is a	fiddler	crab a	vertebrate	or an	inverte	ebrate?
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It is a/an _____.

2. What are the body parts of a fiddler crab?



3. What kind of food does a fiddler crab eat?

4. How does a fiddler crab move?

5. What is a fiddler crab's habitat (natural home)?

Answers

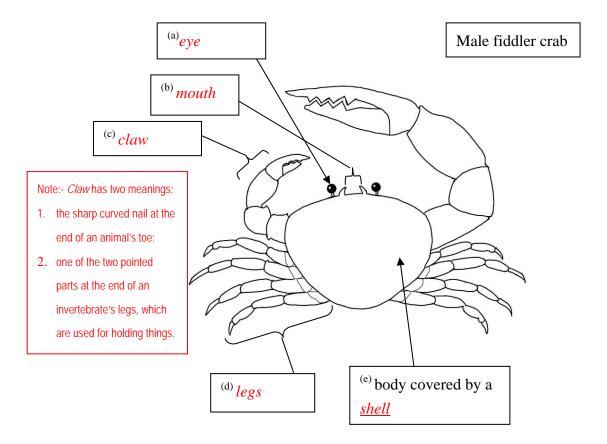
Observing an Animal (3) - Fiddler Crab 招潮蟹

Study the video clips and the pictures of male and female fiddler crabs. Then answer the following questions.

1. Is a fiddler crab a vertebrate or an invertebrate?

It is a/an *invertebrate*.

2. What are the body parts of a fiddler crab?



- 3. What kind of food does a fiddler crab eat?
 - It eats food debris.
- 4. How does a fiddler crab move?

It uses legs to crawl.

5. What is a fiddler crab's habitat (natural home)?

Its habitat is a wetland.

ELA2 Lesson Plan – Observing an Animal (4-5) & Revision

Description:

This lesson, Observing an Animal (4-5) & Revision, is an extension of Section 2.2 – Observing an animal – in the CDC syllabus. In the previous lesson, students observed one invertebrate and two vertebrates through pictures and video clips, and completed some relevant worksheets. In this lesson, they will observe two more vertebrates. They will also revise the vocabulary about the animals studied through an animal-guessing activity.

Content
Objectives:

After completing the activity, students should be able to:

• identify the external feature, feeding habits, movement and habitats of a bird and a fish¹ through observing the pictures and videos of these animals.

Language Objectives:

After completing the activity, students should be able to:

- understand and use the English terms for describing the characteristics of a bird and a fish (e.g., vertebrate, invertebrate, head, mouth, eye, nose, leg, claw, tail, body, covered by, shell, scales, hair, meat-eaters, plant-eaters, food debris, movement, swim, walk, crawl, climb, habitat, rivers, wetlands, forests, panda, saltwater crocodile and crab); and
- describe the external features, feeding habits, movement and habitats of a bird and a fish in simple English, e.g.,
 - A black-faced spoonbill is a vertebrate. It eats shrimps, crabs and fish. It uses its legs to walk on the ground and its wings to fly. Its habitat is a wetland.
 - A humphead wrasse is a vertebrate. It eats fish. It uses its fins and tails to swim. Its habitat is the sea (around coral reef).

•	describe orally the external	l features and n	novement of so	ome common
	animals, using the given se	entence starters.	, e.g.,	
	Animal 1 is It is	It has	It uses	to It can

Activities:

1. Revision – whole-class activity (7 min)

- 2. Studying video clips and completing worksheets whole class activity (15 min)
- 3. 'What is the animal?' individual and pair work (18 min)

Materials:

Slides containing pictures of the relevant animals, and URLs for the video clips of them; Worksheets *Observing an Animal* (4) & (5); Revision worksheet *What is the Animal*?

¹ Note: The fish selected for this activity is humphead wrasse, which is observed through watching slides and video clips. If a tank of fish, such as goldfish, is kept in the laboratory, you may ask the students to observe the living fish in a tank instead of watching slides and video clips. The worksheet can be changed accordingly with the drawing of a goldfish downloaded from the Internet.

Steps:

Revision – whole-class activity (7 min)

- 1. Using questions to review the content about observing a panda, a crocodile and a crab which was taught in the previous lesson. You may construct the same vocabulary list on the blackboard as before while doing the revision with students. *Vocabulary for animals:*
 - a. Types of animal
 - vertebrate/invertebrate
 - c. Body parts
 - head/ mouth/ eye/ nose/ leg/ claw/ tail/ body covered by: shell/ scales/ hair
 - e. Habitats
 - rivers
 - wetlands
 - forests

- b. Movement
 - swim/walk/crawl/climb tree
- d. Types of food
 - meat-eaters: e.g., fish/turtles/birds
 - plant-eaters: e.g., bamboo leaves food debris

2. Tell students that they are going to observe two more animals with which most Hong Kong people are familiar.

Studying video clips and completing worksheets – whole-class activity (15 min)

- 3. Distribute the worksheets: *Observing an Animal* (4) & (5).
- 4. Show the slides and video clips of a black-faced spoonbill.
 - In the process, you may use questions to draw the class' attention to the body parts of a spoonbill and the way it eats and moves.
- 5. Complete the worksheet with the students. Encourage them to provide the answers in Chinese if they do not know the English terms. You can then supply the answers in English.
- 6. Repeat Steps 4 & 5 for *Observing an Animal* (5).

What is the animal? – Individual and pair work (18 min)

- 7. Review the vocabulary learned in *Observing an Animal (4) & (5)*. You may add further items to the list which is written on the blackboard:
 - *Vocabulary for animals:*
 - a. Types of animal
 - vertebrate/invertebrate
 - b. Body parts
 - head/mouth/eye/nose/
 - leg/claw/tail/
 - body covered by: shell/scales/hair
 - c. Types of food
 - *meat-eaters: e.g., fish/turtles/birds*
 - plant-eaters: e.g., bamboo leaves
 - food debris
 - d. Movement
 - swim/walk/crawl/climb trees
 - e. Habitats
 - rivers
 - wetlands
 - forests
- 8. Distribute the revision worksheet to students.
- 9. Tell students that they are going to choose three animals from the pictures and ask their classmates to guess what these animals are by telling them the animals' characteristics.
- 10. Firstly go through the pronunciation of the animals' names with the class. You also need to point out the difference between the two types of movement, *walk* and *hop*, as hopping was not mentioned in the previous worksheets. You may demonstrate the difference by mimicking the two types of movement.
- 11. Give students time to complete the worksheet. Tell students not to let their classmates know which three animals they have chosen. Tell them to consult you if they are not sure about any of the answers.
- 12. Monitor the class and offer help where necessary. Tell students to use *and* to link the choices if two are put in one single blank.
- 13. After students have completed the worksheet, demonstrate to them how to ask a classmate questions to guide him/her to guess the animal. For example, you may ask

the following questions: What is the animal?

It is a vertebrate.

It has hair covering its body.

It uses legs to move.

It can walk and climb trees.

Invite responses from the class and then give feedback on the suggested answers. If an answer is incorrect, point out what is wrong with it.

- 14. Organize the students into pairs and ask them to carry out the animal guessing activity.
- 15. You may round up the activity by nominating two or three students to ask the class questions for them to make guesses at the animals.

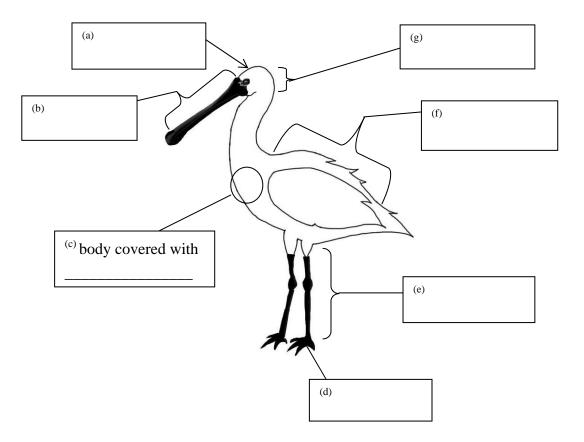
Observing an Animal (4) – Black-faced Spoonbill 黑臉琵鷺 (a bird)

Study the video clips and the pictures of a black-faced spoonbill. Then answer the following questions.

6. Is	s a black-faced	l spoonbill a	vertebrate	or an	invertebrate?
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It is a/an _____.

7. What are the body parts of a black-faced spoonbill?



8. What kind of food does a black-faced spoonbill eat?

9. How does a black-faced spoonbill move?

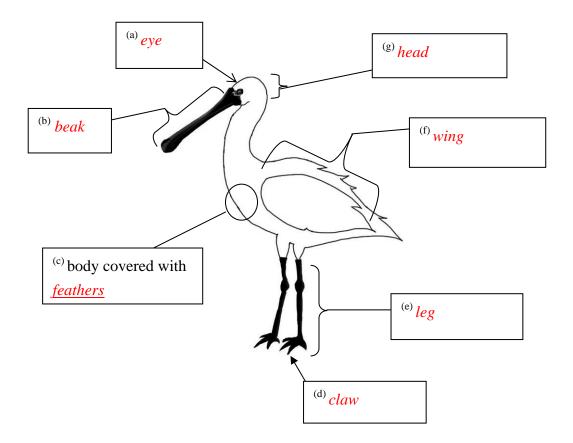
It uses legs to ______ on the ground and its wings to _____.

What is a black-faced spoonbill's habitat?	

Observing an Animal (4) – Black-faced Spoonbill 黑臉琵鷺 (a bird)

Study the video clips and the pictures of a black-faced spoonbill. Then answer the following questions.

- Is a black-faced spoonbill a vertebrate or an invertebrate?
 It is a/an vertebrate.
- 2. What are the body parts of a black-faced spoonbill?



- 3. What kind of food does a black-faced spoonbill eat?

 <u>It eats shrimps, crabs and fish.</u> (or any reasonable answer)
- 4. How does a black-faced spoonbill move?It uses legs to walk on the ground and its wings to fly.

5.	What is a black-faced spoonbill's habitat? <u>Its habitat is a wetland</u> .

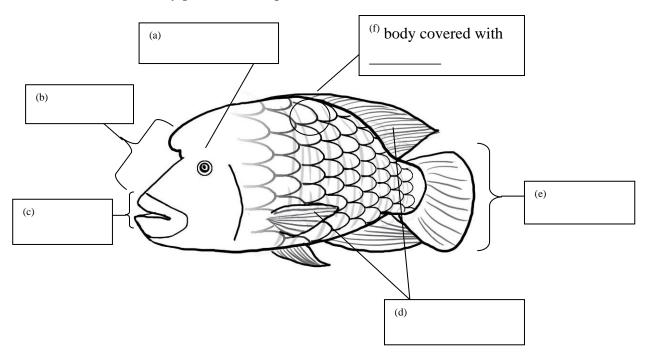
Observing an Animal (5) – Humphead Wrasse 鬚眉

Study the video clips and the pictures of a humphead wrasse. Then answer the following questions.

1	In a hou	mahaad	*****	vertebrate	~ ~ ~ ~	invental	amata?
1.	is a nu	mpneau	wrasse a	vertebrate	or an	mvertet	maic:

It is a/an _____.

2. What are the body parts of a humphead wrasse?



3. What kind of food does a humphead wrasse eat?

4. How does a humphead wrasse move?

5. What is a humphead wrasse's habitat?

Answers

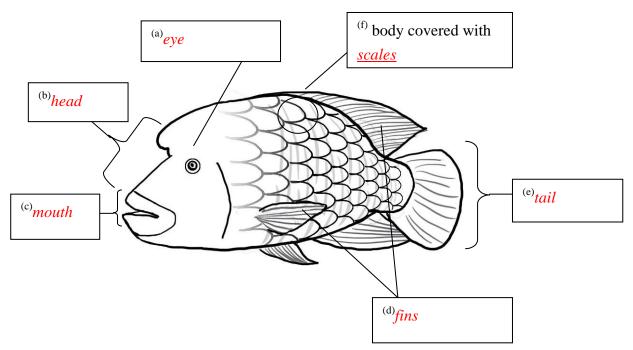
Observing an Animal (5) – Humphead Wrasse 鬚眉

Study the video clips and the pictures of a humphead wrasse. Then answer the following questions.

1. Is a humphead wrasse a vertebrate or an invertebrate?

It is $a/an \underline{vertebrate}$.

2. What are the body parts of a humphead wrasse?

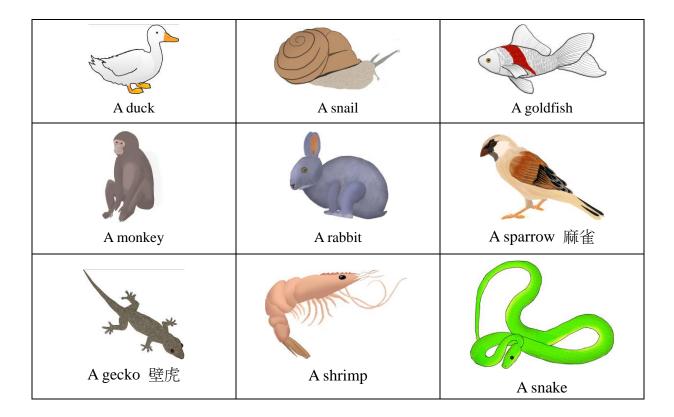


- 3. What kind of food does a humphead wrasse eat?

 <u>It eats fish.</u>
- 4. How does a humphead wrasse move?

 <u>It uses fins and a tail to swim.</u>
- 5. What is a humphead wrasse's habitat? *Its habitat is the sea (around coral reef).*

What is the Animal? – Revision



Choose three animals from the pictures above and write down the characteristics of the three animals in the table below. You may put more than one choice in each blank. Then ask your partner to guess the animals by telling him/her their characteristics.

Animal 1:	Animal 2:	Animal 3:
It is	It is	It is
(a vertebrate/an invertebrate)	(a vertebrate/an	(a vertebrate/an invertebrate)
	invertebrate)	
It has		It has
covering its body.	It has	covering its body.
(a shell/hair/feathers/scales)	covering its body.	(a shell/hair/feathers/scales)
	(a shell/hair/feathers/scales)	
It uses		It uses
to move.	It uses	to move.
(legs/fins/wings/the body/a	to move.	(legs/fins/wings/the body/a
tail)	(legs/fins/wings/the body/a	tail)

	tail)	
It can (walk/hop/climb trees/ crawl/fly/swim)	It can (walk/hop/climb trees/ crawl/fly/swim)	It can (walk/hop/climb trees/ crawl/fly/swim)

ELA3 Lesson Plan – Using Keys for Identification

Description:

This lesson is an extension of Section 2.4 – Sorting things into groups – in the CDC syllabus. Students have learned to use a simple key in Chinese to identify some particular animals and plants. They also acquired the relevant English vocabulary for describing the external features, feeding habits, movement and habitats of some animals in two previous EMI-ELA lessons. In this lesson, they will recycle the vocabulary about the external features of animals when they use the key provided to identify animals in an activity.

Content

After completing the activity, students should be able to:

Objectives:

• identify the animals presented in diagrams by means of a simple key.

Language
Objectives:

After completing the activity, students should be able to

- understand and use the English terms for animal identification (e.g., key, Wetland Park animals, with wings, with feathers, without feathers, dragonfly, egret, magpie, common mormon without wings, with legs, without legs, with fins, without fins, mudskipper, water snake, mongoose, with scales, without scales, tree frog, wild pig, skink, streams, with a shell, without a shell, paradise fish, turtle, Hong Kong newt, otter, freshwater snail);
- comprehend a simple identification key in English; and
- explain orally their answers of animal identification in English, e.g.,
 - Animal B does not have wings. It does not have legs. But it has fins. Therefore, it is a mudskipper.

Activities:

Individual and pair work:

- Identifying animals in a wetland (15 min)
- Identifying animals in a woodland and a stream (25 min)

Materials:

Worksheets Animals in a Wetland, Animals in a Woodland, Animals in a Stream

Steps:

Identifying animals in a wetland (15 min)

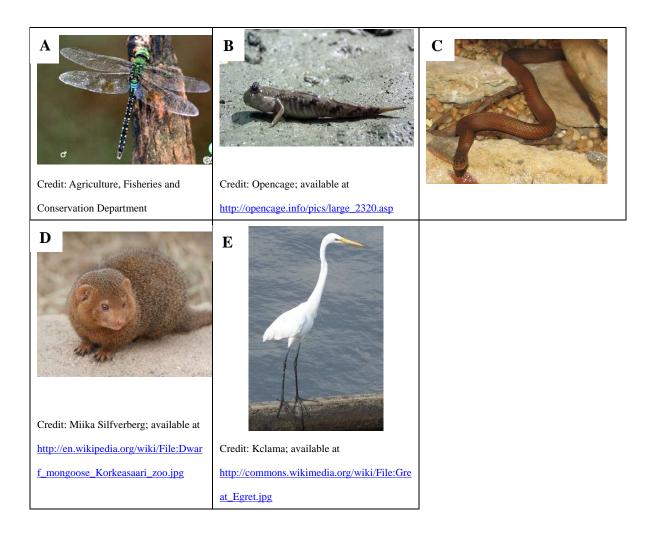
- 1. Briefly review the wetland animals the students learned in previous CMI or EMI lessons.
- 2. Tell them that they are going to find out the names of other wetland animals in places such as Hong Kong Wetland Park, using a simple key.
- 3. Distribute the worksheet, *Animals in a Wetland*, to the class.
- 4. Explain to the class that they are going to identify the given animals using external features such as wings, feathers, legs, fins. Check whether they can remember the meaning of these terms.
- 5. As a revision exercise, work with students to identify the first animal, i.e., Animal A. You may need to project the key onto a screen, and show them step by step how to get at the name of Animal A.
- 6. Tell students to find out on their own the names of the remaining animals by using the same key. When they have finished the worksheet, tell them to compare their answers with their classmates'. In pairs, ask them to explain the answers to each other. You may write the relevant sentence patterns on the blackboard to guide them in oral explanation. For example: *Animal B does not have wings. It does not have legs. But it has fins. Therefore, it is a mudskipper.*
- 7. Provide feedback by asking some students to explain their answers each student for one animal.
- 8. The English names of some of the animals may be quite difficult to students. Tell them not to worry about these names as they are not required to memorize them. Their task is to learn to use a simple key to find out the names of some animals. You may also provide the Chinese names when checking the answers so that students can have a better idea of what the animals are.
 - (Chinese names are not provided in the key. Students have to go through the key step by step in order to obtain the English answers to the animals' names.)

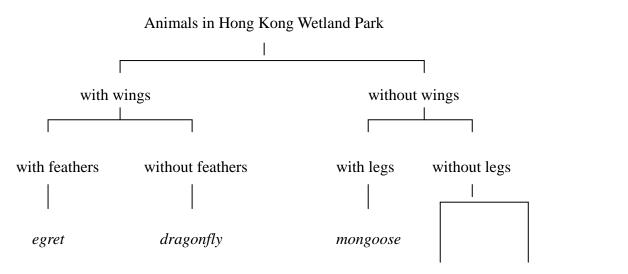
Identifying animals in a woodland and a stream (25 min)

- 9. Distribute the worksheets, *Animals in a Woodland* and *Animals in a Stream*, to the students. Ask them to complete the two worksheets and explain to their partners in the same way as before.
- 10. Provide feedback by asking some students to explain their answers each student for one animal.

Animals in a Wetland

The following animals, A to E, are found in a wetland in Hong Kong. Use the key to find out their names.

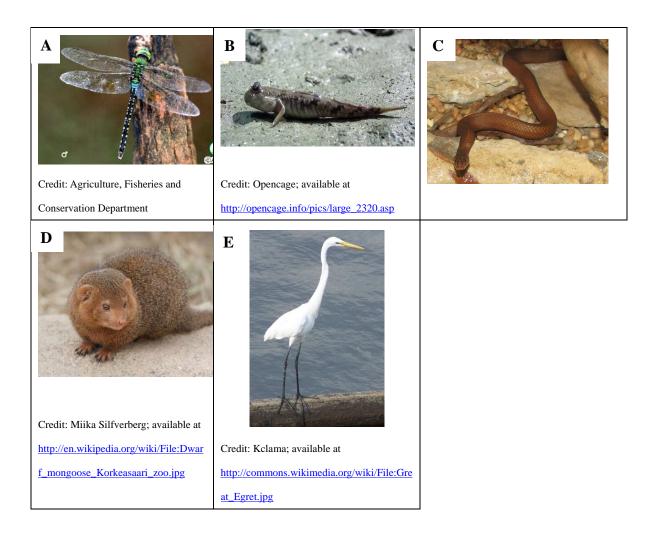




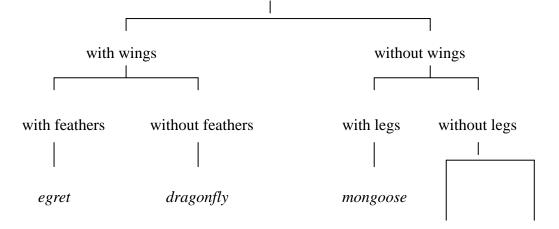
with fins	without fins		
mudskipper	water snake		

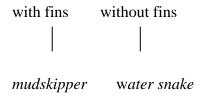
A is a/an	D is a/an
B is a/an	E is a/an
C is a/an	

The following animals, A to E, are found in a wetland in Hong Kong. Use the key to find out their names.





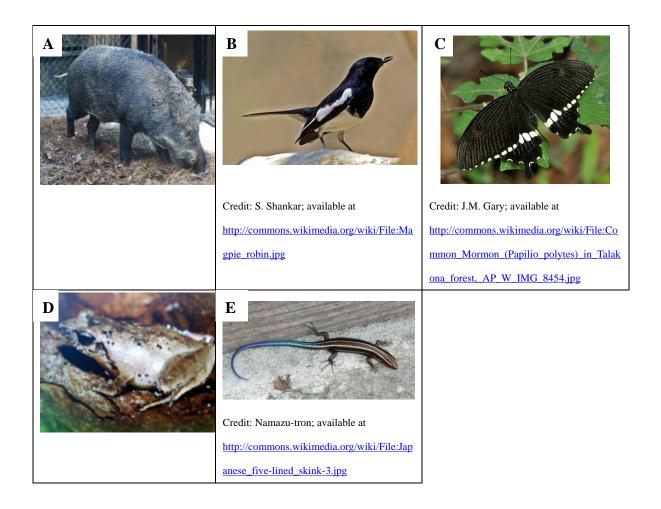


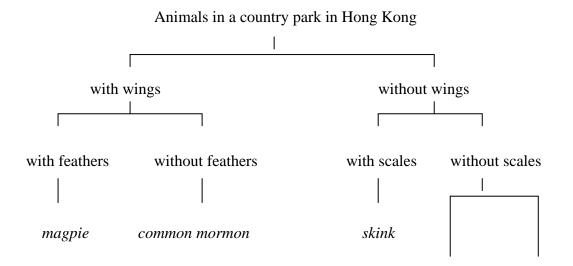


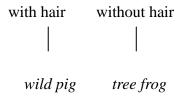
A is a/an dragonfly 蜻蜓	D is a/an <i>mongoose 紅頰朦</i>
B is a/an mudskipper 彈塗魚	E is a/an egret 白鷺
C is a/an water snake 水蛇	

Animals in a Woodland

The following animals, A to E, are found in a woodland in Hong Kong. Use the key to find out their names.

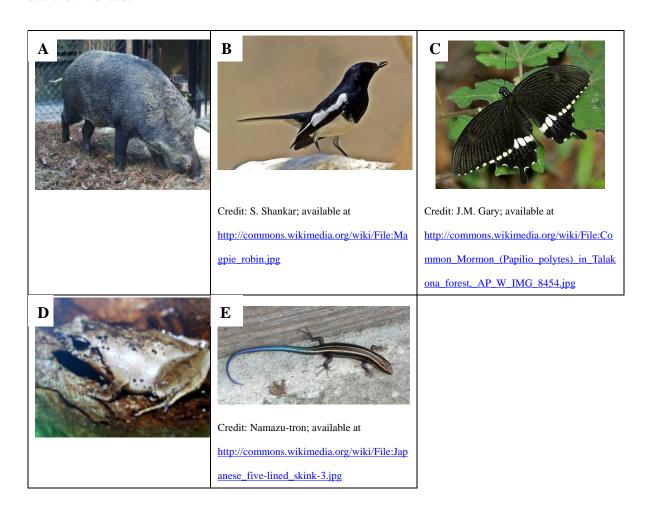




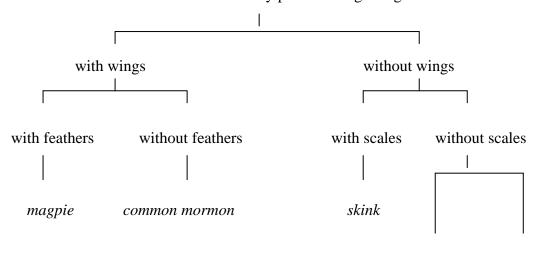


A is a	D is a
B is a	E is a
C is a	

The following animals, A to E, are found in a woodland in Hong Kong. Use the key to find out their names.

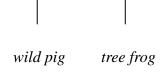


Animals in a country park in Hong Kong



with hair

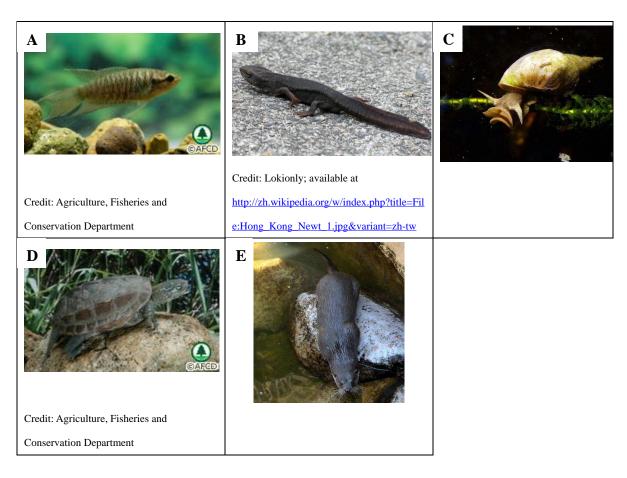
without hair

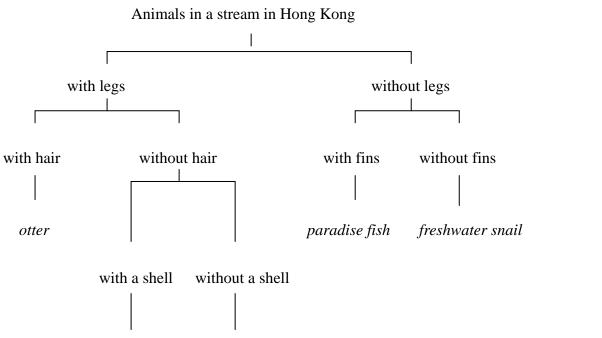


A is a wild pig 野豬.	D is a tree frog 樹蛙.
B is a magpie 喜鵲.	E is a skink 石龍子.
C is a common mormon 鳳蝶.	

Animals in a Stream

The following animals, A to E, are found in a stream in Hong Kong. Use the key to find out their names.

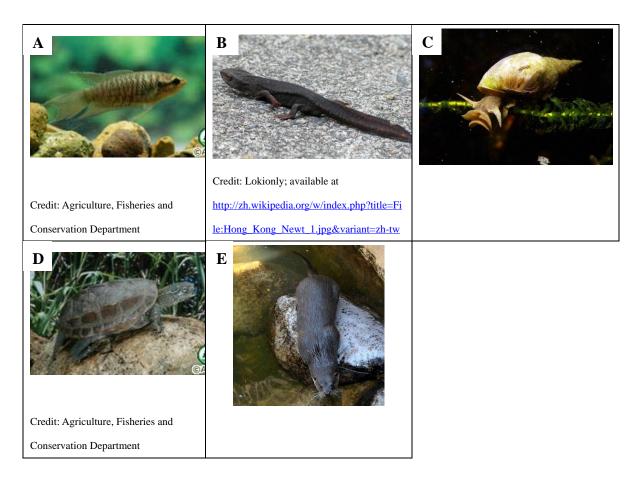


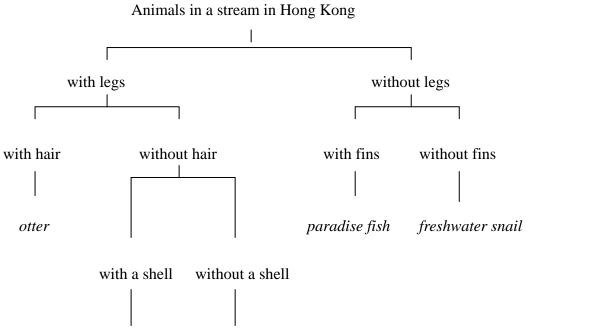


turtle Hong Kong newt

A is a/an	D is a/an
B is a/an	E is a/an
C is a/an	

The following animals, A to E, are found in a stream in Hong Kong. Use the key to find out their names.





turtle Hong Kong newt

A is a paradise fish 鬥魚	D is a turtle 烏龜.
B is a Hong Kong newt 香港蠑螈.	E is an otter 水獺
C is a freshwater snail 淡水螺	

Note: The distribution of otter is rare in Hong Kong. Records are restricted in Mai Po.

PowerPoint Slides: Observing an Animal (1-3)

Observing an Animal (1-3)

ELA Research Team, OUHK August 2009

Panda—An An/Jia Jia (1) Former Faure Vi Wai

Panda - An An/Jia Jia (2)



Source: Leung Yi Wai

Panda -- Ying Ying/Le Le

• http://www.oceanpark.com.hk/panda/blog. asp

Saltwater crocodile -- Pui Pui (1)



Saltwater crocodile -- Pui Pui (2)



Saltwater crocodile -- Pui Pui

- http://www.wetlandpark.com/tc/exhibition/p uipui.htm
- http://hk.video.yahoo.com/video/video.html ?id=260389
- http://hk.video.yahoo.com/video/video.html ?id=403020

Fiddler crab (male) 招潮蟹(雄性)(1)



Fiddler crab (male) 招潮蟹(雄性)(2)



Fiddler crabs 招潮蟹



Fiddler crab

- http://hk.video.yahoo.com/video/video.html ?id=365178 (male)
- http://hk.video.yahoo.com/video/video.html ?id=365172 (female)
- http://hk.video.yahoo.com/video/video.html ?id=365153 (male)

PowerPoint Slides: Observing an Animal (4-5)

Observing an Animal (4-5)

ELA Research Team, OUHK August 2009

Black-faced spoonbill黑臉琵鷺 (1)



Black-faced spoonbill黑臉琵鷺 (2)



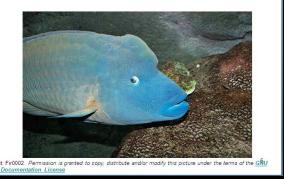
Black-faced spoonbill黑臉琵鷺

 http://www.youtube.com/watch?v=Cfi_-YxaOug

Humphead wrasse 蘇眉 (1)



Humphead wrasse 蘇眉 (2)



Humphead wrasse 蘇眉

- http://www.youtube.com/watch?v=KVVXGt NN35E
- http://www.youtube.com/watch?v=8tjjo7g sqk&feature=related

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