

Beyond the  
Panda 熊猫后续



## Teacher Notes for Panda Packs

### How to Play & Answers

in partnership with



# P1-P3 Panda Pack

## Ideas on how to use the pack

- The individual games can be used to study relevant subjects and provide an exciting way to introduce cross curricular links to language learning.
- The giant panda lifecycle diagram can be used as a wall poster and the activity associated with the diagram is useful for learning about sizes and measurement.
- Set up stations around the room with an activity at each. See below for suggestions. This would provide a short introduction to each.

### Station 1

### Giant panda habitat building game



### Station 2

### Chinese matching colours & numbers

It is suggested that these two activities are grouped together in order that each workstation takes approximately the same time to complete.



### Station 3

### Giant panda senses & lifecycle



### Station 4

### Fur, feathers, skin & scales



# Giant Panda Habitat Building Game

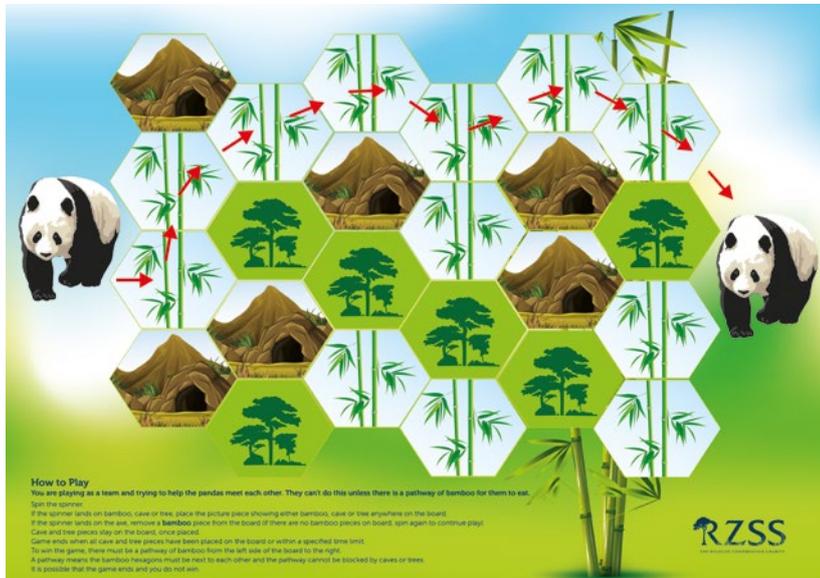
## Contents:

Habitat building game board

24 hexagon pieces – 12 bamboo; 6 trees; 6 caves

1 spinner card with plastic spinner

This picture shows a possible pathway.



## How to Play

It is a team game therefore the group playing are not competing against each other. They are trying to make a pathway of bamboo across the board so the two pandas can meet. The rules and how to play are written on the game board. Remember that trees and caves, once placed on board, do not move. Bamboo can get cut down if they spin an axe. The axe in the game replicates habitat loss.

## Extension information -

This game replicates the conservation work being carried out for the giant pandas. Giant pandas used to live throughout south east China but are now only found in some isolated areas in Sichuan, Gansu and Shaanxi. In the past a male panda could meet a female panda, even if they were many miles apart. Giant pandas can travel as long as there is bamboo for them to eat. Now some pandas only living a few miles away from each other may not be able to meet because the bamboo habitat has been destroyed. Bamboo corridors are being reconstructed to try to join up the isolated areas.

Current giant panda distribution



Historic giant panda distribution



These maps are available in the P4-P7 materials.

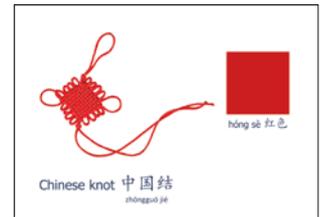
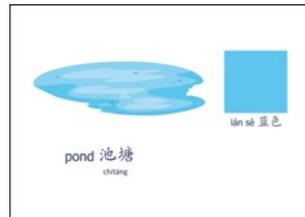
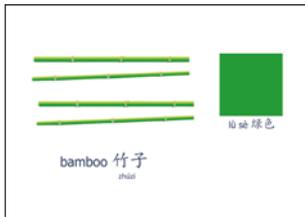
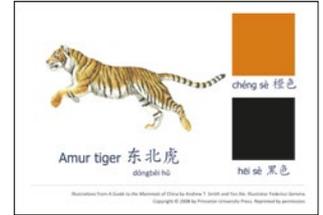
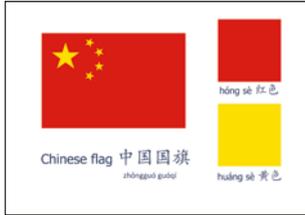
# Chinese colours matching game

## Contents:

6 base cards

9 coloured squares

## Answers:



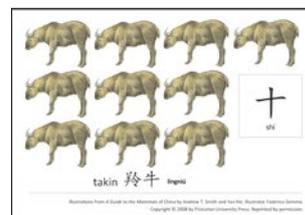
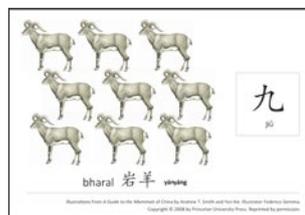
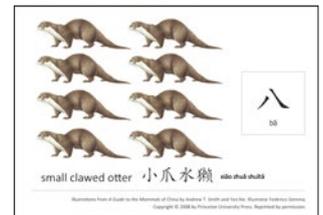
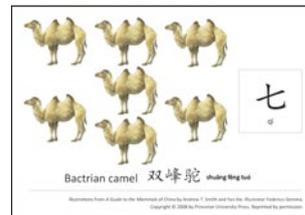
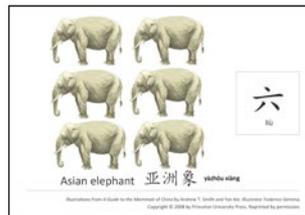
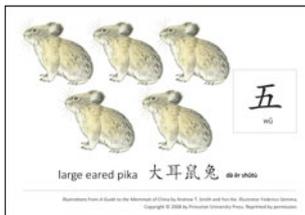
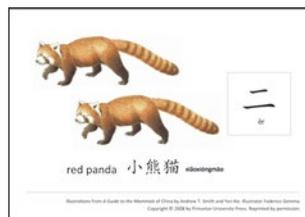
# Chinese number matching game

## Contents:

10 base cards

10 Chinese number labels

## Answers:



## Giant Panda senses game

A matching game to recognise that not all Chinese words are made up of single characters. Most words are made up of a combination of characters. A simple introduction to radicals.

### Contents:

5 panda senses photos

5 character squares

5 Chinese word labels

### Answers:



ear	耳	耳朵	ěrduo
eye	目	眼睛	yǎnjing
nose	鼻	鼻子	bízi
mouth	口	嘴巴	zuǐba
hand	手	手	shǒu

# Giant Panda's lifecycle and tape measure

## Contents:

- giant panda diagram
- giant panda tape measure

## Requirements:

Paper & pencils to make a comparison chart



## How to Play

The giant panda diagram can be used as a wall chart.

The panda tape measure is marked with an approximate guide to the sizes throughout the lifecycle. Use the tape measure to measure other items in the classroom and make a comparison chart of items that are the same size as the giant panda at the different stages.

# Fur, Feathers, Skin & Scales

A simple classification of some Chinese animals with an introduction to the related Chinese characters.

## Contents:

- 5 base boards
- 5 animal cards
- 5 English name cards
- 5 Chinese name cards

Pupils match the correct picture and English name to the correct animal board. To match the correct Chinese character they have to look very carefully at the animal picture cards and find the hidden character. These are all Chinese animals which can be further explored in the P4-P7 panda pack materials.

Note that the mammal is actually a Chinese pika 鼠兔 shǔtù meaning 'mouse rabbit'. It is a member of the rabbit family. For simplicity (and to keep to one character names) it has been named rabbit, which is part of the Chinese name. Further details are in the P4-P7 materials.

## Answers:

<p><b>MAMMAL</b> 哺乳类 <small>bǔ rǔ lèi</small></p>   <p>hair or fur</p> <p>rabbit 兔 <small>tù</small></p>	<p><b>BIRD</b> 鸟类 <small>niǎo lèi</small></p>   <p>feathers</p> <p>bird 鸟 <small>niǎo</small></p>	<p><b>REPTILE</b> 爬行类 <small>pá xíng lèi</small></p>   <p>dry scales</p> <p>snake 蛇 <small>shé</small></p>
<p><b>FISH</b> 鱼类 <small>yú lèi</small></p>   <p>wet scales</p> <p>fish 鱼 <small>yú</small></p>	<p><b>AMPHIBIAN</b> 两栖类 <small>liǎng qī lèi</small></p>   <p>nothing (just plain skin)</p> <p>frog 蛙 <small>wā</small></p>	

# P4-P7 Panda Pack

## Ideas on how to use the pack

- The timeline game can be played as a class. The challenges can be tackled as a class and the game can be played over a period of time, possibly playing each day for a limited number of turns and completing a challenge per day. There are also extension challenges for each timeline date available in the follow-on materials on the website.
- The classification, lifecycle, skull board activities and the bamboo game can be used to study these subjects and provide an exciting way to introduce cross curricular links to language learning.
- The habitat and region maps can be used as classroom posters which can be referred to during various activities. The associated questions cards can be used for further study.
- Set up 6 stations around the room with a game at each. This would provide a short introduction to each.

Station 1      Timeline game



Station 2      Habitat map & question cards



Station 3      Region map & question cards



Station 4      Bamboo board & quiz



Station 5      Classification game



Station 6      Lifecycle & skull boards



It is suggested that these two activities are grouped together in order that each workstation takes approximately the same time to complete.

# Timeline Game

This fun board game represents a timeline from 1869, when the first Westerner discovered giant pandas, to 2011 when Tiantian 甜甜 and Yangguang 阳光 arrived at RZSS Edinburgh Zoo.

## Contents:

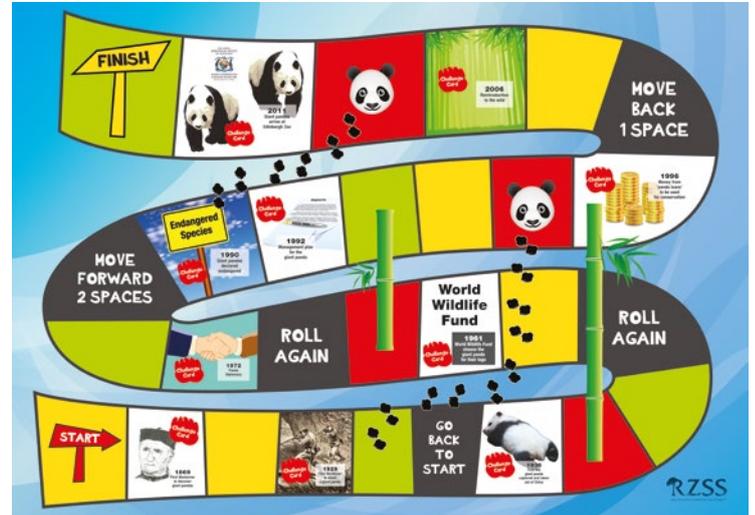
Timeline Game Board

Information & Challenge Cards (tabbed cards)

## Requirements:

playing pieces

dice



## How to Play

Each player chooses a colour playing piece.

Each player takes it in turn to roll the dice and move the relevant number of spaces.

Follow any instructions which are given on the game board, for example 'Move back 1 space' or 'Roll again'.

If a player lands on a giant panda head, the player follows the panda paw prints down the board. This is to represent that giant pandas are endangered.

If a player lands on the base of a bamboo stem, the player moves their piece up the bamboo. This is to represent that RZSS along with the China Wildlife Conservation Association (CWCA) are replanting bamboo.

If a player lands on a timeline space with the Challenge Card paw print, the player looks up the relevant date in the 'Information & Challenge Cards'. The player reads out the question on the Challenge Card for that date. All players discuss. The player can then turn the card over to find out the answer and some additional information.

## Extension Material

- The following is available on the website
- An extension set of 'Challenge Card' questions – suggested use as homework or further research.
- Teachers notes and answers for extension Challenge Cards.
- A template of the game with blank date/challenge card spaces in order for teachers or children to develop their own version, i.e. more general topics on Chinese history, culture or language.

# Habitat map

## Contents:

- Current habitat map
- Historic habitat map
- 6 habitat map question cards

## Answers:

**Question 1:** Find the following habitats on the map: desert, mountains, grassland, mixed forests, rainforests and rivers.



**Question 2:** Look closely at the two maps. What do you think has been the main threat to giant pandas?



Current giant panda habitat - small separate white areas

Large white area shows where giant pandas used to live

The two maps show that the main threat to the giant panda has been **habitat loss**.

Map number 2 shows where giant pandas used to live around 2000 years ago.

## Habitat map

### Answers (continued):

**Question 3:** *These animals live in China – white river dolphin, Amur tiger and Bactrian camel. Do you know which habitat these animals live in?*

The **white river dolphin** lives in the Yangtze **river**. It is critically endangered.

The **Amur tiger** may be found around the north east border of China in **coniferous forests**. The other subspecies of tiger found in China is the Indo-Chinese, in south Yunnan rainforest. The south China tigers are believed to be extinct.

The **Bactrian camel** is found in the Taklamakan and Gobi **deserts**.

**Question 4:** *Work out what these characters mean: 大 and 小*

大熊猫 dà xióng māo means big bear cat; 小熊猫 xiǎo xióng māo means small bear cat.

大 dà means big and 小 xiǎo means small.

**Question 5:** *Do you think the red panda is related to the giant panda? Read card number 6.*

The red panda and the giant panda are **not** related. The **giant panda is a bear** and the red panda is in a family all by itself (*Ailurus*). Both the giant panda and the red panda have an overgrown bone which acts like a thumb.



giant panda  
*Ailuropoda melanoleuca*



red panda  
*Ailurus fulgens*

## Region map

### Contents:

Region map

6 region map question cards

### Answers:

**Question 1:** Do you know what these characters mean? 中国

中国

Zhōngguó means China, literally it means middle kingdom

### Additional Information -

英国

Yīngguó means Britain, literally it means brave kingdom

苏格兰

Sūgélán means Scotland, this is made up of characters to sound like Scotland

**Question 2:** The letters A, B and C on the map are large cities. Do you know which is Beijing, Shanghai and Chengdu?



A: Běijīng

B: Chéngdū

C: Shànghǎi

Beijing will be the one which is the most northern of the three cities. Shanghai will be the one marked near the sea. Chengdu must be the other city.

北京 Běijīng means north capital

上海 Shànghǎi means on the sea

成都 Chéngdū means to become a city

**Question 3:** 江 jiāng means river. Look for provinces with 'jiang' as part of the name.

There are five provinces in China with 'jiāng' in the name:

Hēilóngjiāng, Jiāngsū, Zhèjiāng, Jiāngxī

and Xīnjiāng, where jiāng is a different character and means border - 疆

**Question 4:** Giant pandas in the wild are mostly found in a province meaning '4 rivers'. I wonder if you can work out the Chinese name of this province.

四川 Sīchuān is the province where most of the giant pandas live in the wild today. They are also found in Gānsù 甘肅 and Shǎnxī 陝西 (sometimes written as Shaanxi so as not to confuse with another province Shānxī 山西 - note the different tones and different characters).

**Question 5:** Which is the flag of China?



Flag A is the flag of Vietnam



Flag C is the flag of Turkey

**Question 6:** What is the population of China?

The population as at March 2021 is approximately 1.4 billion.

# Bamboo Board

## Contents:

- Bamboo board
- 5 name plates
- 8 bamboo question cards

Answers are on the bamboo question cards.

## The Bamboo Plant



# Lifecycle of the Giant Panda

## Contents:

- 6 lifecycle boards
- 6 age labels

## Answers:



**newborn**

Length 15cm  
Average weight 120g  
 $\frac{1}{10000}$  of the weight of mum



**15 days**

Black and white patterns appear



**1 month**

Begins to look like a giant panda



**1 year**

Playing and learning



**18 months to 2 years**

Time to leave mum



**lifespan 20 to 25 years**

**Adult**  
Females usually breed from about 5 years old and males from about 7 years. If successful the fertilised egg divides into a ball of cells called a 'blastocyst'. This ball of cells stops growing and floats around the uterus (womb) until it is the right time to implant in the uterine wall. This is called delayed implantation. Therefore panda pregnancies can range from 62 - 225 days (approx. 3 - 8 months).

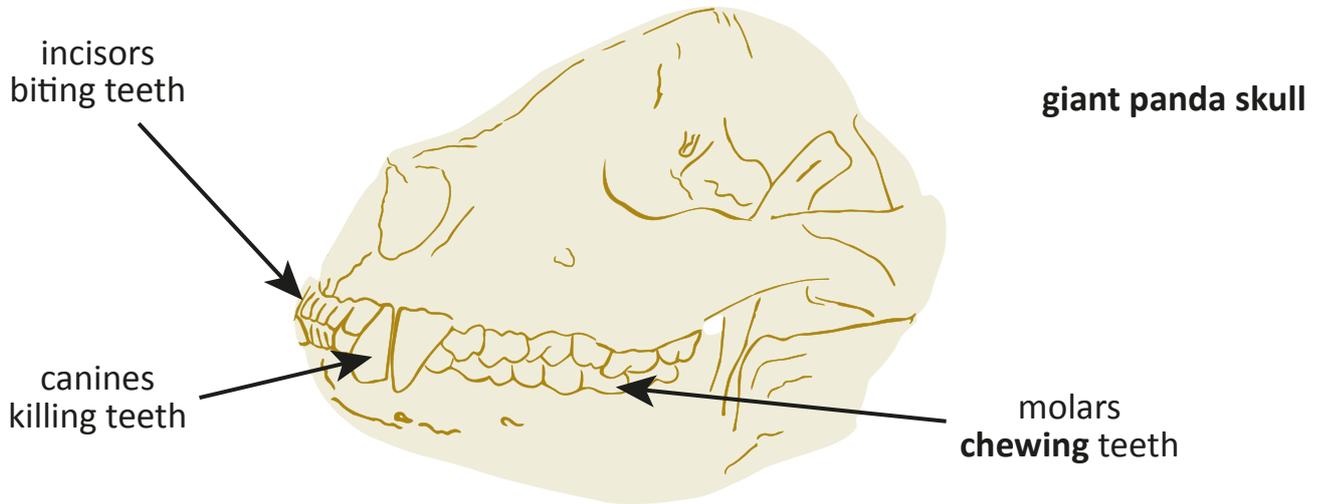
# Skulls

## Contents:

1 skull card

2 skull cut-outs

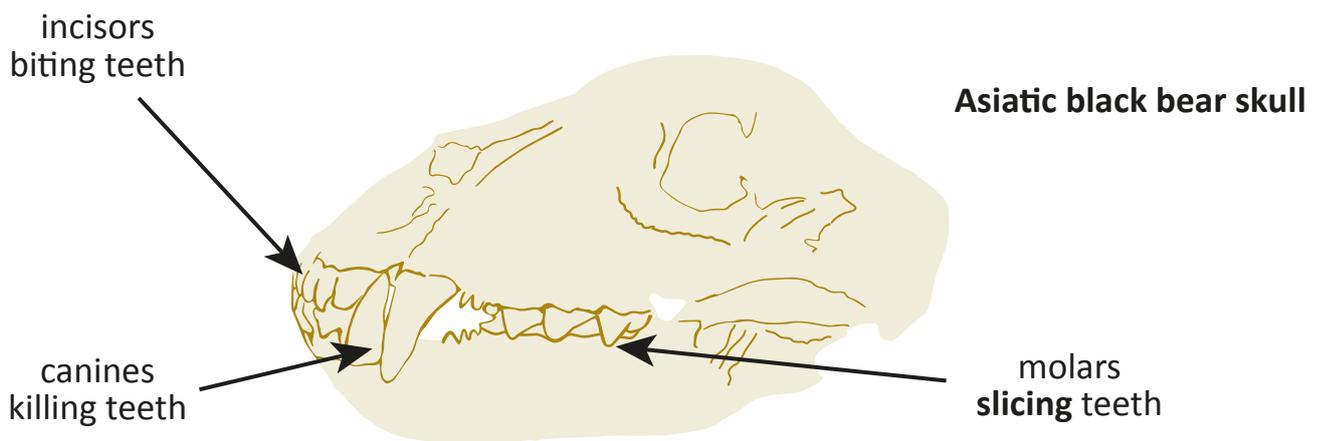
The giant panda's teeth have evolved to cope with eating bamboo. See diagrams below which compare the skulls of a giant panda and an Asiatic black bear (moon bear).



The back teeth (molars) of the giant panda are broad and sit on top of each other. These are good for chewing bamboo.

Most other bears have sharp molars that slide past each other. These are good for slicing meat. They are called carnassial molars.

[Although note that bears are omnivores and have relatively undeveloped carnassial molars compared to carnivores.]



Most bears have 42 teeth. The **upper jaw on one side** would have 3 incisors, 1 canine, and 6 molars (4 pre-molars and 2 molars). The **lower jaw on one side** would have similar with 7 molars (4 pre-molars and 3 molars).

The dental formula is written - I3/3, C1/1, P4/4, M2/3 showing the number of teeth on top and bottom on **one** side.

# Classification Game

## Contents:

- 5 vertebrate group boards
- 5 picture cards
- 5 description cards
- 5 name cards - English
- 5 name cards - Chinese
- 1 glossary card

Pupils who have learnt some basic Mandarin may start to recognise some common characters. For example, 大 - dà big; 耳 - ěr ear; 头 - tóu head; 海 - hǎi sea; 树 - shù tree; 中国 - zhōngguó China

## Answers:

**MAMMAL 哺乳类**



Body Covering hair or fur

Breathing lungs

Babies live birth  
There are 3 egg-laying mammals that live in Australia and New Guinea - the platypus, short-nosed and long-nosed echidna.

Large eared pika 大耳鼠兔

**BIRD 鸟类**



Body Covering feathers

Breathing lungs

Babies hard shelled eggs

Steller's sea eagle 虎头海雕

**REPTILE 爬行类**



Body Covering dry scales

Breathing lungs

Babies soft shelled eggs  
There are 2 tree snakes and 1 lizard that give birth to live young and some that appear to give birth but actually the eggs hatch inside them.

Burmese python 缅甸蟒

**AMPHIBIAN 两栖类**



Body Covering nothing (just plain skin)

Breathing lungs when adult; gills when young

Babies jelly - like eggs  
There are 3 tree amphibians which live in water and have gills at that life.

Chinese tree frog 中国树蛙

**FISH 鱼类**



Body Covering wet scales

Breathing gills

Babies jelly - like eggs

Kunming snout trout 昆明裂腹鱼

Beyond the Panda 熊猫后续



The Beyond the Panda website has interactive games and activities linked to these packs.

[beyondthepanda.org.uk](http://beyondthepanda.org.uk)

China/Scotland Pack



Nursery Resources



P1 - P3 Panda Pack



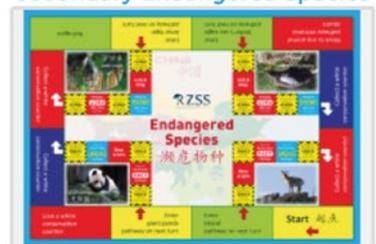
P4 - P7 Panda Pack



S1 - S2 Panda Pack



Secondary Endangered Species



Panda Folders



Virtual session resources Leve...



Zoo Fun with Mandarin



in partnership with

