RZSS Confucius Classroom

China Mobile Library & Packs

Outreach: Endangered Species

in partnership with
Ideas on how to use the S1/S2 pack:

The resources are designed to be used as class activities bringing language learning into the following different topics – biology; environmental science; art; history and culture.

**Topic 1**  China Map activity

**Topic 2**  China Animal & Adaptation game

**Topic 3**  Giant Panda Art activity

**Topic 4**  Giant Panda Biology challenges

**Topic 5**  Giant Panda Enclosure activity

**Topic 6**  Story of Silk activity

**Topic 7**  Chinese Etiquette game
China Map activity

Contents:
10 x region cards
10 x Chinese name cards
1 x China region map

Using the clues on the region cards and the China map, match up the regions to the correct Chinese names.

Answers:

Extension: Use the map to work out the literal meaning of the other regions.
China Animal & Adaptations game

Contents:
6 x habitat shaped boards
6 x habitat character cards
6 x animal picture cards
6 x animal character cards
6 x adaptation cards
1 x character chart

Using the clues from the character chart:
• Match the habitat character cards to the habitat shaped boards – mountain; desert; mixed forest; rainforest (fern); grasslands and river.
• Match the animal character cards to the animal pictures.
• Match the adaptation card to the correct animal.
• Place the animals with their appropriate cards on the correct habitat shaped boards.

Answers:

1. mountain  山脉
Chinese pika 大耳鼠兔

Adaptations: ability to live in high rocky landscapes
ability to live in cold environments
excellent sense of smell
2. desert
   Bactrian camel
   Adaptations: stores fat to live days without food
   ability to live in very hot & cold temperatures

3. river
   white river dolphin
   Adaptations: uses echo location
   communicates with clicks and whistles
4. **rainforest**

**pangolin**

Adaptations: long sticky tongue to eat ants & termites
long strong front claws for digging
rolls into a ball for defence

5. **mixed forest**

**giant panda**

Adaptations: overgrown wrist bone that acts like a thumb
excellent sense of smell
6. grasslands
wild boar

Adaptations: can feed on a variety of plants & animals
excellent sense of smell
large canine teeth for defence
Giant Panda Art activity

Contents:
1 x instruction card
5 x giant panda art cards
5 x English word cards
5 x Chinese word cards
1 x character chart

Requirements:
paper
art materials
• Match both the English and Chinese words for the different art styles to each of the five picture cards.
• From the list of features given on the instruction card, decide which can be achieved using each style.
• Draw a giant panda in a style of your choice.

Answers

<table>
<thead>
<tr>
<th>画</th>
<th>彩笔画</th>
<th>pen</th>
</tr>
</thead>
<tbody>
<tr>
<td>画</td>
<td>水彩画</td>
<td>water colour</td>
</tr>
<tr>
<td>画</td>
<td>铅笔画</td>
<td>pencil</td>
</tr>
<tr>
<td>画</td>
<td>毛笔画</td>
<td>brush painting</td>
</tr>
<tr>
<td>画</td>
<td>粘贴画</td>
<td>collage</td>
</tr>
</tbody>
</table>

Features –
pen: fine and sharp lines
watercolour: contrast; depth; colour; thick and thin strokes.
pencil: fine lines; sharp lines; some depth; shadows; thick and thin strokes.
brush painting: contrast; thick and thin strokes.
collage: contrast; depth; 3D effects; texture; colour.
Giant Panda Biology challenges

Contents:
5 x challenge cards
6 x cell cards
7 x timeline cards
2 x development cards
1 x giant panda lifecycle diagram

Read through the information on the five cards, then complete the challenges.

Answers

1. Lifecycle
Measure the newborn giant panda on the lifecycle diagram which is to a scale of 1:5. The newborn should measure approximately 3cm. Multiply this by 5 to get 15cm which is the average size of a newborn giant panda.

Measuring approx. 3cm on A3 card. At 1:5 scale, newborn is 15cm.
2. Having giant panda babies

Human embryo development

Giant panda embryo development

In the giant panda there is usually a 1-3 month delay before implantation.
3. Bamboo

The **rhizome** is an underground stem that spreads away from the main plant and sends up shoots. **Nodes** are short solid sections in between the longer, hollow sections of bamboo stems. The **leaves** grow from the node.

![Diagram of bamboo showing rhizome, stem, node, leaf, and root.]

4. Poo

**Yang Guang and Tian Tian at RZSS Edinburgh Zoo**

Urine samples are analysed from Tian Tian to try to establish her fertile period, whether mating or artificial insemination has been successful and when or if the embryo has implanted.

Faecal samples are tested from both giant pandas to be aware of any health issues.
5. The panda ‘thumb’

The red panda is the only other animal alive today that we know of to have a similar overgrown wrist bone to the giant panda. Red pandas are not related to giant pandas but both have evolved this extra ‘digit’ to grip bamboo.

This is known as convergent evolution. Convergent evolution is when two totally different species develop similar characteristics or adaptations.

Divergent evolution is when species from the same common ancestor evolve with differences, resulting in the formation of a new species.
Giant Panda Enclosure activity

Contents:
1 x panda enclosure background
6 a panda enclosure items
1 x clue card

This basic background for a giant panda enclosure is provided but six more items are essential for the giant panda. With the help of the clue card, place each item in its correct place.

Answers

Radicals

A Chinese radical is part of a Chinese character and is how the character would be found in a traditional Chinese dictionary. The radical usually relates to the meaning of the character. Some radicals are useful to know and recognise.

Extension: Use a Chinese dictionary to look up the characters.
Story of Silk activity

Contents:
1 x silkworm lifecycle board
6 x silkworm discs
3 x silk information cards

Place the silkworm lifecycle discs onto the silkworm lifecycle board in the correct order. Read the information cards.

Answers

Silkworm lifecycle board

1. adults mating
2. eggs
3. newly hatched
4. caterpillar
5. cocoon
6. adult

Extension: Find out more about the production of silk and the history of the silk route. Find out about the new silk road project.
Chinese Etiquette game

Contents:
18 question & answer cards:
3 x 6 different topics –
business
food
gestures
expressions
gifts
numbers

The cards should be placed picture side up. They are numbered according to their topic and one suggestion is to roll a dice to determine which topic to pick. Alternatively they can be answered randomly. Discuss the question in a group before turning over to find out the answer.

Answers are given on cards with an explanation.