

Challenge Card: Lifecycle



Giant panda babies don't look anything like an adult giant panda. They are pink with a little bit of white hair.

An adult giant panda is between 120-150cm in length.



Look at the giant panda lifecycle diagram which is drawn to a scale of 1:5. Work out the size of a newborn giant panda.

Useful words:

baby panda	xióng māo bǎo bao	熊猫宝宝
young panda	xióng māo yòu zǎi	熊猫幼崽
adult panda	chéng nián dà xióng māo	成年大熊猫

Challenge Card: Having giant panda babies



The length of the giant panda's gestation period (length of time the baby grows inside mum) is not exact. It can range from 3-8 months. The fertilised egg first 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.



Using the cell and timeline cards, place them in order for the development of a human embryo and then the development of a giant panda embryo.

Useful words:

fertilised egg	shòu jīng luǎn	受精卵
blastocyst	pēi náng	胚囊
uterus or womb	zǐ gōng	子宫
delayed implantation	yán chí zhuó chuáng	延迟着床
gestation	yùn qī	孕期

Challenge Card: Bamboo



Bamboo is a kind of grass. It grows as tall as trees and can look more like a forest than grassland! There are more than 1,000 different kinds of bamboo.



Find out about the different parts of the bamboo plant – stem; leaf; node; root and rhizome.

Useful words:

bamboo	zhú zi	竹子
stem	jīng gàn	茎干
leaf	yè	叶
node	jīng jié	茎节
root	gēn	根
rhizome	gēn zhuàng jīng	根状茎

Challenge Card: Poo



© Dr. Linda Neaves, Royal Botanic Garden, Edinburgh

Bamboo & Giant Panda Project –

a partnership between Royal Zoological Society of Scotland, Royal Botanic Garden, Edinburgh and the China Conservation & Research Centre for the Giant Panda.

Dr Linda Neaves says, "Although giant panda's mainly eat bamboo, this does not mean their diet is simple. Over 60 kinds of bamboo can be eaten by the giant panda, as well as other plants and some animals. Panda poo contains the remains of everything the panda has eaten which means we can learn about the different types of bamboo and other food the panda eats. With more understanding of what the panda eats, it will help with the restoration of their habitat."



Find out some of the information which can be found from testing urine (piddle) and faeces (poo).

Useful words:

poo	dà biàn	大便
piddle	xiǎo biàn	小便



Challenge Card: The panda 'thumb'



Giant panda's don't have thumbs but do have an extra digit which is actually an overgrown wrist bone that acts like a thumb. This helps them grip and handle the bamboo.

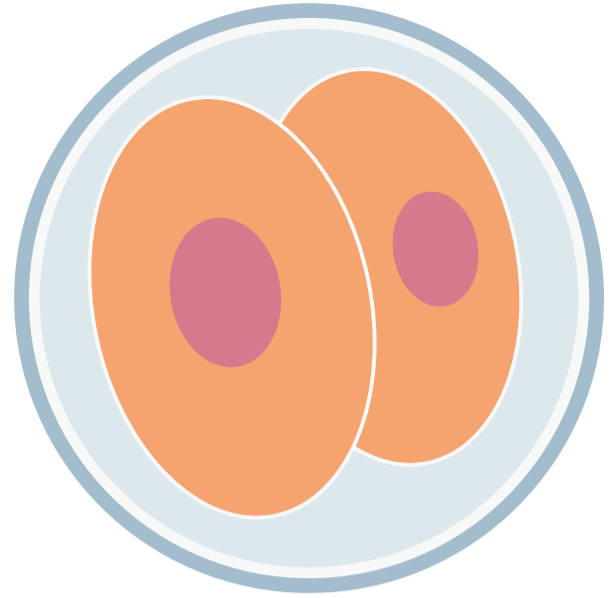


Find out if there is any other animal which has a similar overgrown wrist bone.

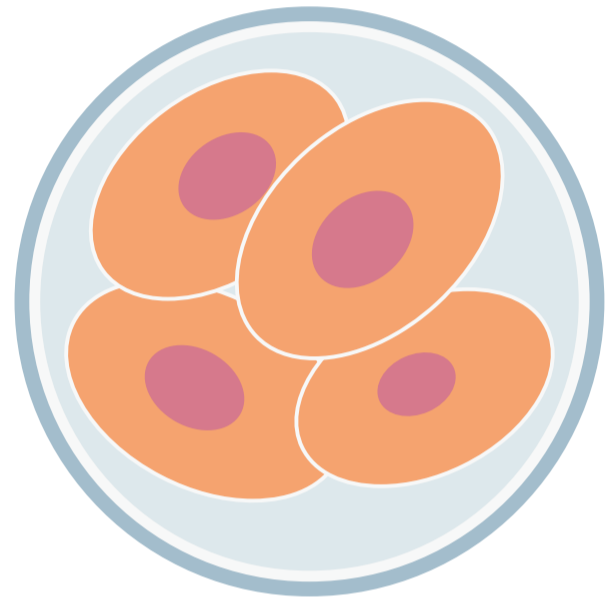
Useful words:

giant panda	dà xióng māo	大熊猫
hand	shǒu	手
finger	shǒu zhǐ	手指
thumb	mǔ zhǐ	拇指
wrist	shǒu wàn	手腕

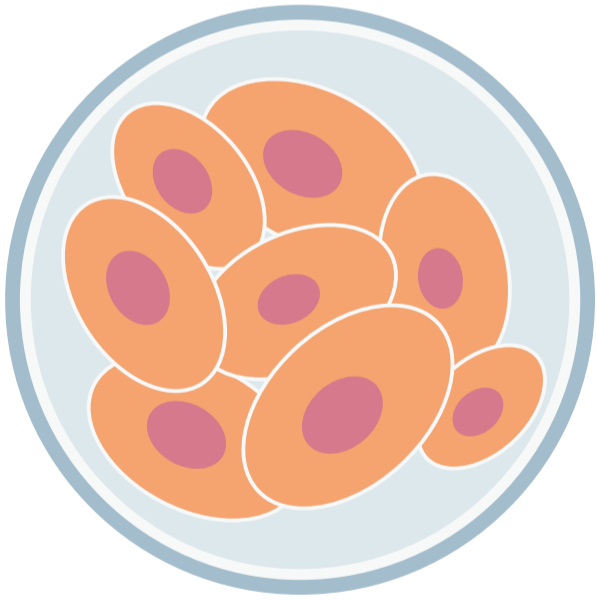
Cell Card



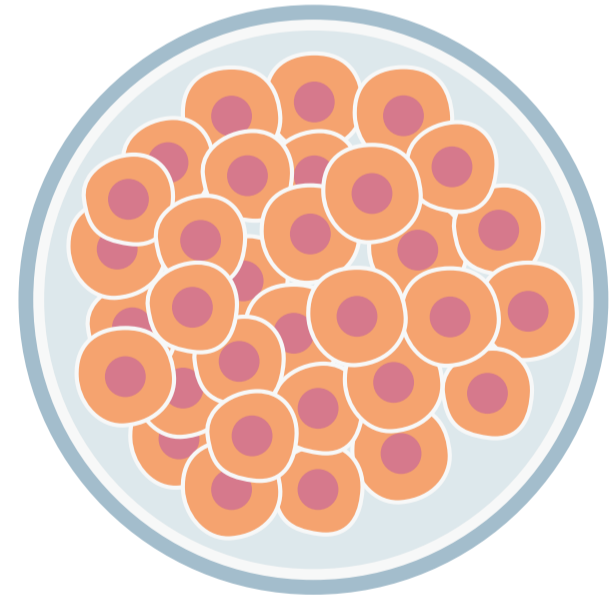
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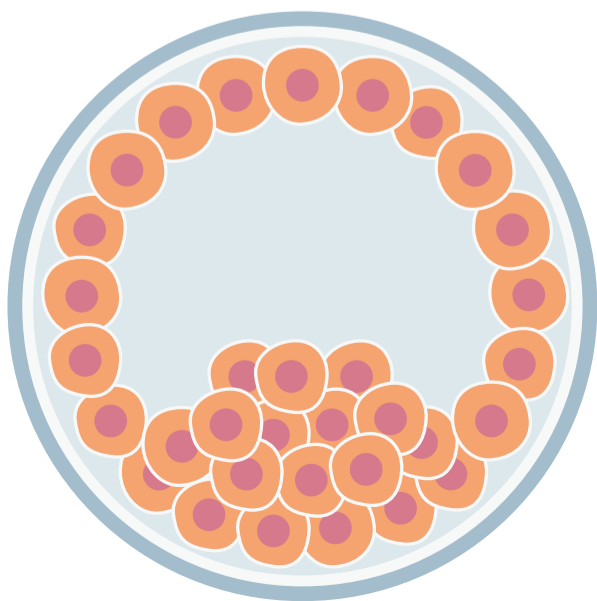
Cell Card



Cell Card



Cell Card



Cell Card



Timeline Card

Day 1-2 2 cell stage

Timeline Card

Day 2-3 4 cell stage

Timeline Card

Day 3-4 8 cell stage

Timeline Card

Day 4-5 ball of cells

Timeline Card

Day 5-6 blastocyst

Timeline Card

Day 6-9 blastocyst implants

Timeline Card

Day 30-90 blastocyst implants

human
embryo development

giant panda
embryo development



*Weights and measurements are a guide. Graphic courtesy of Zoo Atlanta.

