Colchester Zoo
Learning at the Zoo
Activity Pack 4

This pack is designed to provide parents, families and groups with information and activities to help you learn at Colchester Zoo. Complete the activities to earn Children’s University passport stamps! There are four different packs, you can mix and match and complete worksheets from all the packs. Please note, you can earn a maximum of 6 hours per day by completing worksheet pages.

If you are working to earn Children’s University passport stamps, please complete as many pages of the worksheets as you wish and bring them to Guest Services at the end of your day. The more pages you complete, the more stamps you earn up to a maximum of six hours per day.

Please download and print the pack yourself. For a small donation we can print this pack on your behalf.
Fish Spotter

People sometimes miss all the interesting fish around the zoo. Follow the hints and see if you can find these animals.

- **Blue Tang**
  - Their neighbours are the orangutans.

- **Koi Carp**
  - These fish have their own Japanese themed home.

- **Koi Carp**
  - Their neighbours are the orangutans.

- **Blackspotted Puffer Fish**
  - This fish has one of the smallest animals at the zoo as their neighbours, who spend their day cutting leaves in the giraffe house.

- **Red Lionfish**
  - This fish enjoys swimming with the blackspotted puffer fish.

- **Maroon Clownfish**
  - These fish live happily with the blue tangs.

- **Red-Bellied Piranha**
  - You'll find these fish watching the visitors in Worlds Apart.

- **Clown Loach**
  - These fish swim with the turtles in the orangutan house.

- **African Lungfish**
  - You'll find this fish living at the top of the giraffes and rhinos home.

After finding these fish, write down one cool fact about each of them on the next page. Find information about them on signs near their enclosure, or just by watching what they do and how they act. Record information like: how big they are, what food they like to eat, or anything else you want to remember.
Fish Factsheet:
Record one cool fact or something you notice about each fish.

Blue Tang

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Red Lionfish

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Maroon Clownfish

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Koi Carp

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Blackspotted Puffer Fish

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Red-Bellied Piranha

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Clown Loach

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African Lungfish

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Please note, you can earn a maximum of 6 hours per day.
Umpfafa Species Count

Head to the Action for the Wild room (next to the Komodo dragon enclosure) on the back wall are signs about the Umpfafa Nature Reserve in South Africa. On the sign in the corner there is a species censes for 2010, 2011 and 2012. From this complete the table below.

Data Table

<table>
<thead>
<tr>
<th>Number of...</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tbody>
<tr>
<td>Giraffe</td>
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<td>M. Reebuck</td>
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<td>Warthog</td>
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Create a line graph below from the data in the above table.

Make sure you label the axes and an appropriate scale.

Which species has increased the most? ________________________________
How do you compare to the animals?

As you explore the Zoo there are several challenges for you to have a go at. Below is a list of these challenges with their location number which matches with the numbers on the map on the next page. When you have completed each challenge, write down your results.

Can you stand on one leg as long as flamingo? You can find out at 1
Length of time on one leg:____________________________________

How fast can you run? See which animals you can out run, and which animals can out run you at 2
Your speed was:_________  Which animal(s) was faster than you?__________
________________________________________________________________

Can you lift as much as a spider monkey or as much as an elephant? Found out who is the strongest at our strength test located at 3
You could lift the same as:___________________________________________

How many arm flaps can you do in 10 seconds? Odd question but hummingbirds can flap their wings 50 times in 10 seconds!. Find out if you can keep up at the wing challenge at 4
Number of arm flaps in 10 seconds:__________________________________

Can you jump further than a flea or can a flea beat you in a jumping contest? Head to the jumping challenges at 5 to find out!
You can jump as far as a:___________________________________________

Please note, you can earn a maximum of 6 hours per day
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The Plant Hunt - Page 1

Go to the garden opposite Walking with Giants (tortoise enclosure) in the Familiar Friends area of the Zoo. Use the clues below to identify the plants by reading the plant information signs in the garden.

This plant has white flowers and red fruits with smooth grey bark that gets rough with age.

--------------------------------------------------------------------------------------------------

An evergreen shrub used in cooking. If left, the flowers are purple/blue spikes.

--------------------------------------------------------------------------------------------------

Even though this plant is called bamboo, it’s not bamboo. It has white flowers and the berries are toxic to cats and grazing animals.

--------------------------------------------------------------------------------------------------

Despite the name, this plant is not native to England. Instead it’s native to the Mediterranean.

--------------------------------------------------------------------------------------------------

This plant can grow up to 8 metres tall with honey scented, white flowers. The fruits are not true strawberries, but are orange-red fruits.
The Plant Hunt - Page 2

Tick off the plants when you find them, use the clues to help locate the trickier plants.

Tree Fern □
Several can be found next to the enclosure of the world’s largest lizard.

Monkey Puzzle Tree □
We have a young monkey puzzle tree, which can be found near the viewing area of a swimming bird from South America.

Eucalyptus Tree □
The best place to see this tree is at the exit to the home of one of the world’s slowest animals.

Larch Tree □
This tree looks like an evergreen but it loses its leaves in the winter! This tree can be found in between the homes of the world’s tallest animal the world’s largest animal.

Weeping Willow □
There are many of these trees around where the wild ducks and swans like to spend their time.
Camouflage Creepy Crawly
Visit the Discovery Centre and watch the stick insects.

Draw a picture of two different types of stick insects.

Why do you think they look different?__________________________________________________________
_________________________________________________________________________________________  
_________________________________________________________________________________________

Stick insects have camouflage that helps them hide in the trees. Which part of the tree do you think each type of stick insect would be the best at hiding in? Draw this in the background of your pictures.

Hold the Giant Spiny Stick insect.
What does it feel like?____________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

Why do you think it feels like that?____________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
Talks, and Feeding Times

There are a lot of feeds and talks that happen throughout the day. Check the map (available at Guest Services, Entrance and online) for locations and times.

Ask the keeper at the end of the talks if you need help.

Attend the Humboldt Penguin Encounter (Inca Trail) and answer the following questions:

How do the keepers tell the penguins apart? ________________________________________________________________

What is the weather like in their natural habitat? (Circle the correct answer)
- Cold and snowy
- Hot and dry
- Similar to the U.K.’s

What is guano? _____________________________________________

Watch the Amur Leopard Encounter and answer the following questions:

Why are the two Amur leopards kept separate from one another? ________________________________________________________________

How many Amur leopard are left in the wild? ________________________________________________________________

What is happening to help wild Amur leopards? ________________________________________________________________

Go to the Chimpanzee Encounter and answer the following questions:

What are the names of three of the chimpanzees? ________________________________________________________________

Chimpanzees are… (Circle the correct answer)
- Carnivores
- Herbivores
- Omnivores

What is the roll of the alpha male? ________________________________________________________________
Visit the **Bears of the Rising Sun** lower viewing area to help you answer the questions below.

Using the signs to the left of the bear skeleton, answer the following:

- Count how many teeth you have and compare them to the number of teeth sun bears have. Number of your teeth _________________
  Difference between the number of your teeth and the bears______________________

- Sun bears have 12 incisors, 4 canines, 16 premolars and 4 molars on the bottom jaw and 6 molars on the top. Count how many different types of teeth you have.
  ______ incisors, ______ canines, ______ premolars, ______ molars

- Using the mirror, estimate how long your tongue is. Your tongue length_______. Compare with the length of the sun bear’s tongue. How much longer is the sun bear’s tongue? _________________

Using the sun bear, brown bear and polar bear signs, work out the following:

- What is the height difference between the sun bear and the brown bear? ________________________________

- How many sun bears (not standing) would it take to match the height of the polar bear? ______________________

- Using the maximum weight of the bears, what is the combined weight?
  - Weight of the:
    Sun bear_______, Brown bear ________, Polar bear ________
  - Combined total: _______________
Enclosure Usage

It is important to know how the animals use their enclosure. We can find out if there are areas they prefer or are avoiding and why, as well how much of the enclosure is being used throughout the day.

Head to the mixed African animal enclosure called Kingdom of the Wild, (home of the giraffes).

**Step 1 The Plan**
On the grid below draw a basic plan of the outside enclosure. Include the location of feeders/food, water, shelters and the mound. (Viewing from the balcony at the top of the house is a good place to draw)

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**Step 2 Recording**
Choose one of the species in the enclosure and over 5 minutes mark where they are every minute. Repeat for a second species. Use a different symbol or colour for each species.

**Step 3 The Results**
How much of the enclosure is being used? (estimate in fractions, i.e. 1/4 of the enclosure used)

Can you think of a reason why the animals are in that location?

Please note, you can earn a maximum of 6 hours per day
Animal Enrichment

Environmental Enrichment is a term used to describe various activities that keepers use to encourage natural behaviours from the animals under their care. The purpose of enrichment is to encourage behaviours that are appropriate for that species and that satisfy an animal’s physical and psychological needs. For example providing climbing opportunities for tree dwelling animals, or providing problem solving activities for animals such as the chimpanzees.

Below are pictures of just some of the enrichment done at the zoo. In the boxes below draw some enrichment you have seen and label what animal it was with and a brief description of it.

Giraffe
Food frozen in water
Prolongs feeding and offer new textures and tastes.

Tiger
Scent on a plastic boomer ball
Encourages activity and offers new smells

Otters
Footballs
Encourages activity and social interaction

The animals do not need to be using the enrichment at the time of drawing.
Well Done!

Now bring your completed pages of this workbook to the Guest Services building (located next to the red brick building) so we can stamp your Children’s University passport.

PLEASE NOTE, while you can complete as many pages as you’d like from any of the workbooks, YOU CAN ONLY EARN A MAXIMUM OF SIX CU HOURS EACH DAY BY COMPLETING THESE WORKBOOK PAGES

If you have any comments please contact our education team at education@colchesterzoo.org

Want to earn more CU hours?
Kid’s Zoo Academy is a paid two hour experience where you learn all about being a zoo keeper. For details see www.colchesterzoo.org/experiences/kids-zoo-academy