



COLCHESTER ZOO HOME EDUCATION SESSIONS 2022-2023

Sessions for age 11-16
3:00-4:00

| | Topic | Session Description | Key Points Covered |
|---|--|---|---|
| Sept Mon 5 th Tues 6 th Wed 7 th | Role of Zoos: Zoos and Conservation | What do zoos do, and why? Students learn the main goals of a modern zoo. Based on these goals, students can consider their own opinions about zoos while discovering how zoos play vital roles in conservation. Colchester Zoo's contributions to in-situ and ex-situ conservation will be discussed using specific case studies. | Role of zoos; in-situ conservation and ex-situ conservation |
| Oct Mon 3 rd Tues 4 th Wed 5 th | Conservation Fieldwork | Learn details about some of the amazing conservation work being done in the wild. Following real life examples from Colchester Zoo's wild projects, participants will learn about the variety of skills and techniques that let rangers, conservationists, and biologists monitor animals in the wild and learn more about them. | Species richness vs. species abundance; animal counts; feeding behaviour; habitat utilisation; animal population estimates. |
| Nov Mon 7 th Tues 8 th Wed 9 th | Maths | Participants will get hands-on to practice maths skills in a fun, interactive way as they rotate around maths activity stations. Activities include real world job skills, and other hands-on practical maths! Stations will have a few different options so you can select the appropriate level of difficulty to try and solve. | Ratios; percentages; currency calculations; area; speed; volume. |
| Dec Mon 5 th Tues 6 th Wed 7 th | Avian Biology | Using scientific study skins, participants will learn about the diversity of avian biology. We'll investigate what wing cord, and tarsus measurements can tell us, and how it lets us determine where a bird would live or what it might do. We'll use this information to learn some basic bird identification skills. At home, use this knowledge to take part in one of the planet's longest-running Citizen Science projects. | Bird body parts; bird adaptations. |
| Jan Mon 9 th Tues 10 th Wed 11 th | Adapt and Evolve | Discover how animals have evolved their adaptations that help them survive. Darwin's theory of evolution will be discussed along with evidence supporting evolution. We'll then take a closer look at how this has resulted in some of the stranger and weirder animals on the planet. | Evolution; adaptations; convergent evolution. |
| Feb Mon 6 th Tues 7 th Wed 8 th | Animal Training | Participants will learn the theory and practical application of animal training and how it relates to animal behaviour and animal care. We'll start with an understanding of classical and operant conditioning. Building on that, we'll discover how training is a form of operant conditioning, and how clicker training can be used as positive reinforcement to train everything from cats and dogs to Komodo dragons and tigers. | Animal care; animal training; classical conditioning; operant condition; positive reinforcement; clicker training. |
| Mar Mon 6 th Tues 7 th Wed 8 th | Enclosure Design | Participants will learn all about creating appropriate enclosures for zoo animals. Using examples from the zoo, participants learn how enclosure design must meet the needs of the keepers, animals and visitors. The needs of the animals are then explored in more depth with relation to the Five Freedoms and how we ensure proper animal care and welfare. The session ends with an introduction to an (optional) at-home assignment where participants can design their own zoo enclosures and receive feedback from the zoo. | Enclosure design; UV lighting requirements; boiler and heating systems; off-show areas. |
| Apr Mon 17 th Tues 18 th Wed 19 th | Conservation Technology | Technology can help scientists, zoo keepers, and wildlife rangers learn about animals. We'll investigate some of this cutting-edge tech, from radio-collars to neural networks, and how it can help conservation. | Conservation; endangered animals; technology (including GPS, AI, etc.). |
| May Mon 8 th Tues 9 th Wed 10 th | Animal Enrichment | Participants learn how we keep our animals entertained. The problems of stereotypical behaviour (abnormal behaviour) and boredom in captive animals is examined. After that, participants will get the chance to get hands-on and make some enrichment. | Stereotypical behaviour; animal welfare; enrichment. |