



**E·L·I·A·S**

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# Tools

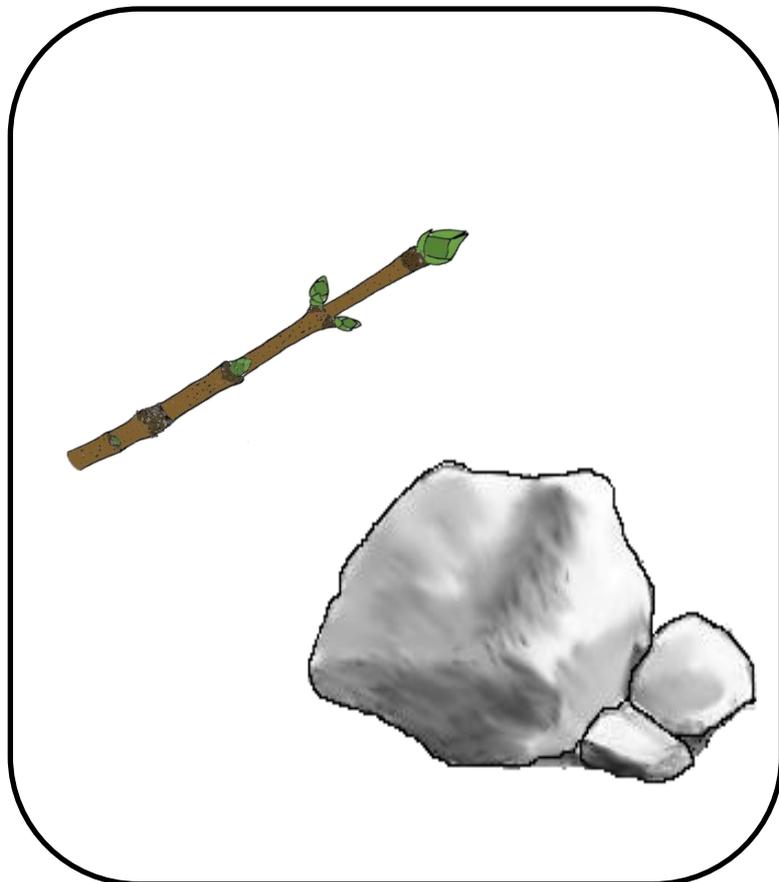


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## General Information: Tools

### Language Goals:

- this module will introduce food vocabulary as well as vocabulary of various tools that humans and animals use in everyday activities

### Environmental Goals:

- throughout this module the children will explore how chimpanzees use tools to obtain food or to use in other activities

### Educator Hint:

- If the children are in the beginning stages of English acquisition, ensure the vocabulary words in CAPS, outlined at the beginning of each session, are made clear before the end of the session. If the children are more advanced in English use the phrases outlined at the beginning of each session as guidelines for sentences. The words and phrases outlined as the last point under the "Words" heading are not essential for understanding, instead they are words and phrases used repeatedly in the classroom and are only for reference.
- If you would like to include additional material with this module, online databases can be an asset, just as this module makes use of Wiki (-pedia and -media). However, when using online databases, please ensure the accuracy of the information obtained by cross-referencing it with other sources.
- If you have older children, make the enrichment in Session 2 a little more difficult with smaller openings and/or deeper holes, so that the children have to think of different ways to retrieve their food.

### Animal information:

- Chimpanzee facts
  - **physiology**
    - *body*: head, 2 arms, 2 legs, body core, covered in a coat of black hair except for on the face, ears, palms and soles are bare
    - *colouration*: the hair is long and black, the skin can either be pink or black
    - *size*: height = 3-4.5' (91-137cm), weight = 27-54kg (60-120lbs)
  - **habitat**
    - Chimpanzees are found throughout Africa in a variety of habitats from forests to savannahs, but mainly in forested areas. Chimpanzees are arboreal and terrestrial; sleeping in trees and coming down to forage.
  - **interesting information**
    - It was a remarkable discovery when scientists discovered that chimpanzees use tools to eat, hunt or defend themselves. Chimpanzees are omnivorous, and when choosing plants to eat they can be very picky in choosing only the ripest fruits. Chimpanzees are "knuckle-walkers", like the gorilla. (African Wildlife Foundation, n.d.; Defenders of Wildlife, 2010)

### Video links:

- Chimpanzees use tools too!: Session 1
  - <http://www.arkive.org/>
    - if you follow this link, ARKive has a wonderful collection of animal videos
    - enter in your desired animal to the search bar and select your own desired videos

- **\*\*some videos on ARKive contain images not suitable for young children\*\***
- **\*\*before showing the videos to the children, please read through the "Terms of Use" on the ARKive website, the ELIAS project and creators of this module are not responsible for misuse of any copyright information\*\***

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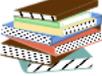
## Chimpanzees use tools too!

### Session 1

#### Materials:

- 
- poster board, separated in 2 columns
  - flash cards 1-11 (F.C.)
    - optional: real objects of the F.C.
  - 'hook and loop' fasteners or tape
  - optional: chimpanzee videos
    - <http://www.arkive.org/>
      - if you follow this link, ARKive has a wonderful collection of animal videos
      - enter in your desired animal to the search bar and select your own desired videos
      - **\*\*some videos on ARKive contain images not suitable for young children\*\***
      - **\*\*before showing the videos to the children, please read through the "Terms of Use" on the ARKive website, the ELIAS project and creators of this module are not responsible for misuse of any copyright information\*\***
  - video watching device (computer or laptop)

#### Words:

- 
- SPOON, FORK, STRAW, NUTCRACKER, ROCK, FOOT, HAND, TWIG, EAT, TOOL, CHIMPANZEE, BOY, GIRL
  - video, watch, hands, feet, fingers, toes

#### Activity:

- 
- **introduction of new vocabulary** (F.C. 1-11)
    - introduce the chimpanzee and children F.C.
    - bring out the poster board and attach the chimp and children F.C. to the top of their columns
      - discuss what the children how the poster board is arranged, so the children understand they will be categorising items
    - introduce the various tools
      - go through each F.C.
      - encourage the children to explain how they use the 'children' tools and how they think a chimp uses its tools
      - once you are finished with the F.C. attach it to the poster board in the appropriate column, either 'children' or 'chimp'
  - **quick game of review**
    - take off the F.C. and hand them out to the students
      - encourage the children to speak the word when they receive the F.C.
    - choose one child at a time to come up and attach their F.C. to the column where they think/remember their tool belongs
      - ask the children each time:
        - "Who uses a spoon?" and answer "A child uses a spoon." or "A chimpanzee uses a rock." (if the language ability is higher, have the children answer the question)
        - if you notice that some of the children attach the F.C. to the incorrect category, ask the child to explain why they put it there
  - **let's watch**
    - in a convenient location, show the video of chimpanzees using tools

- make special note to for the children to pay attention to the chimpanzee and see if they can observe when the chimpanzee uses a tool
- at the end of the video ask the children what tools they saw the chimpanzee use

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## Environmental Exploration Session 1

### Materials:

- 
- group instructions (*page 6*)
    - make as many multiples as needed
  - scavenger hunt flash cards (*page 5*)
    - make as many multiples as needed
    - optional: real items for the scavenger hunt
  - zookeeper
  - tape or adhesive
  - adult helpers

### Activity:

- 
- **preparation** (*page 5*)
    - let the zookeeping staff know you are hiding the items
    - go throughout the chimpanzee house and hide the various items/F.C. in locations where other visitors might not so readily take them
      - **\*\*it is easiest to do this activity during the zoo's offseason, or on a day where there aren't so many visitors\*\***
  - **let's go on a scavenger hunt** (*page 6*)
    - explain the rules of the scavenger hunt
      - stay together in the groups
      - respect the other zoo visitors
      - be careful to cause no damage
      - when the group has found all their items, they are to meet at the end point (a convenient location of your choice)
    - divide the children into groups
      - at least 1 adult to a group
    - hand out the list of items each group is to find
      - each child should have at least 1 tool to find
    - send out the groups
      - depending on the available space you can send the groups at different times
  - **further application**
    - once all the groups are finished, quickly review who uses each tool
    - choose 2 children from the group, one to represent the 'children' and the other to represent the 'chimpanzees'
      - to make it more applicable, we piled our chimpanzee tools just outside the visitor's viewing glass, instead of using a child
    - have the remaining children, one at a time, to come up and offer their tool to the appropriate child (or pile)
  - **for older students**
    - explore the social behaviour of chimpanzees as well
    - observe the chimpanzees interacting with each other and how they can help each other either find tools or teach each other how to use tools
      - the use of tools is a learned trait, passed on from adult to juvenile
    - also, you can explore how other animals use tools, such as sea otters, birds, gorillas, etc.

### Alternative Activity:

- **\*\*if you are unable to access a zoo, you can conduct this activity in a park or school ground\*\***
- **preparation** (*page 5*)
  - scout a convenient location where the children can participate in a scavenger hunt

- hide the tools or F.C.
- **let's go on a scavenger hunt** (page 6)
  - explain the rules of the scavenger hunt
    - stay together in the groups
    - respect the park or school ground
    - be careful to cause no damage
    - when the group has found all their items, they are to meet at the end point (a convenient location of your choice)
  - divide the children into groups
    - at least 1 adult to a group
  - hand out the list of items each group is to find
    - each child should have at least 1 tool to find
  - send out the groups
    - depending on the available space you can send the groups at different times
- **further application**
  - once all the groups are finished, quickly review who uses each tool
  - choose 2 children from the group, one to represent the 'children' and the other to represent the 'chimpanzees'
  - have the remaining children, one at a time, to come up and offer their tool to the appropriate child

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## Eating like a chimpanzee Session 2

### Materials:

- 
- 3 long tree logs with holes drilled into them
    - vary the number and depth of holes according to how many children participating and their abilities
  - 3 or 4 empty bottles/juice containers with holes cut out
    - vary the number and size of holes according to how many children participating and their abilities
  - dried fruit, nuts, gummi candies
    - **\*\*please take allergies into consideration\*\***
    - paper "candies", "fruit" and "nuts" can be put into the logs so the real food doesn't get dirty
    - once the children have dug out a "paper food" they can exchange that food for the real item
  - plastic insects (or drawings) (F.C. 20)
  - flash cards 16-22 (F.C.)
  - real "tools" from the previous session to help retrieve the food from the enrichment
    - twigs, spoons, forks, straws, fingers, etc.

### Words:

- 
- TOOL, LOG, INSECTS, MEAT, NUT, LEAF, VEGETABLES, FRUIT, FLOWERS, EAT, VARIOUS SNACKS
  - animal enrichment, team, game, play

### Activity:

- 
- **preparation**
    - fill the containers and logs with either the food reward or paper representations
      - depending on the age of the children, have them fill their containers with the reward as part of the activity
    - leave one log empty
  - **let's explore** (F.C.16-22)
    - introduce one of the logs and discuss
      - ask the children if they know which animals can live in logs, or in large mounds of dirt
      - chimpanzees love to eat termites, but they have to first figure out how to retrieve them before they eat them
      - ask the children if they can remember a good tool from the last session that might help a chimpanzee retrieve the termites
    - put the plastic termites in the empty holes
    - ask one volunteer to try and retrieve the termites
      - encourage them to use various tools to see which one works the best
    - introduce the food F.C.
      - as each F.C. is introduced discuss the location of that food item
        - in trees, underground, etc.
      - with each F.C. discuss which tool the chimpanzee would use to retrieve that item
  - **child enrichment**
    - introduce the assortment of children's snack rewards
      - discuss that chimpanzees and children eat different things sometimes
        - which food items are different? same?

- divide the children into small groups
  - remind them of what teamwork is
- explain the enrichment
  - bring out the containers and logs and explain what is inside each
  - explain that the children can use the tools to help retrieve the reward
  - encourage the children to explore the learning centre for other tools they could use **\*\*please note safety\*\***
  - if the children have limited language skills, act out the retrieval process so all the children understand what is expected of them
- hand out the containers and logs to the groups
- have fun trying to get the reward out
- continue until all the food has been found by the children

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## Environmental Exploration Session 2

### Materials:

- 
- tree logs with holes drilled into each log
    - ask the zookeepers how many logs is appropriate
  - plastic containers with holes cut into them
    - ask the zookeepers how many containers is appropriate
    - washed and free of chemicals, loose ends, paint, etc.
  - gloves for the children to wear while they handle the chimpanzee's food
  - zookeeper

### Activity:

- 
- **chimpanzee enrichment**
    - remind the children of appropriate behaviour around animals
      - slow movements, quiet voices, leave room for the animal to move, etc.
    - introduce the zookeeper to the children
    - if the zookeeper is comfortable talking to the children, have them talk about the various areas where the zookeepers work
    - discuss why it is important for the children to wear gloves when working in the chimpanzee area
      - chimpanzees and humans suffer from the same viruses and sicknesses
    - in the kitchen area go through the various food items given to the chimpanzees
      - which are similar to what children eat, which differ
    - have the children put on the gloves and allow them to fill the enrichment containers with the food for the chimpanzees
    - once the children have filled the containers the zookeeper will give the enrichments to the chimpanzees
  - **observing the chimpanzees with their enrichment**
    - thank the keeper
    - leave the kitchen and come around to the public side of the glass and watch as the zookeeper gives the chimps their enrichment
    - have the children watch for the use of tools
    - have the children watch for tools not discussed in the activity
    - observe the chimpanzees interacting with each other
      - which chimps work together, why?
      - which chimps work alone, why?

### Alternative Activity:

- **\*\*if you do not have access to a zoo keeper inquire with your local zoo if they would accept an enrichment for the chimpanzees made by the children\*\***
  - most likely the zoo will not accept food as part of the enrichment, but they might accept tools and containers
  - since chimpanzees and humans suffer from the same viruses and sicknesses it is important to ensure a clean work area, and to handle the chimpanzee enrichments with care
  - also, when making the enrichments do not use any materials that would harm the chimpanzees
    - glue, paint, metal pins, chemicals, etc.
- **preparation**
  - assemble the chimpanzee enrichment out of all-natural objects, or hard plastic containers (sterilise any plastic containers before use)
    - tree logs, hay, straw, leaves, branches, etc.

- **creating the enrichment**
  - have all the children wash their hands and ask them to not touch their face while creating the enrichment
  - at your school have the children design a special enrichment for the chimpanzees, using the above specifications
    - encourage the children to think of various designs that would present a challenge for the chimpanzees to retrieve the food
- **zoo visit**
  - arrange a meeting time with a zoo representative and present the student-made enrichments to the representative
- **observing the chimpanzees with their enrichment**
  - thank the keeper
  - go to the public viewing area and watch as the chimpanzees work with their new enrichments
  - have the children watch for the use of tools
  - have the children watch for tools not discussed in the activity
  - observe the chimpanzees interacting with each other
    - which chimps work together, why?
    - which chimps work alone, why?

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