E·L·I·A·S

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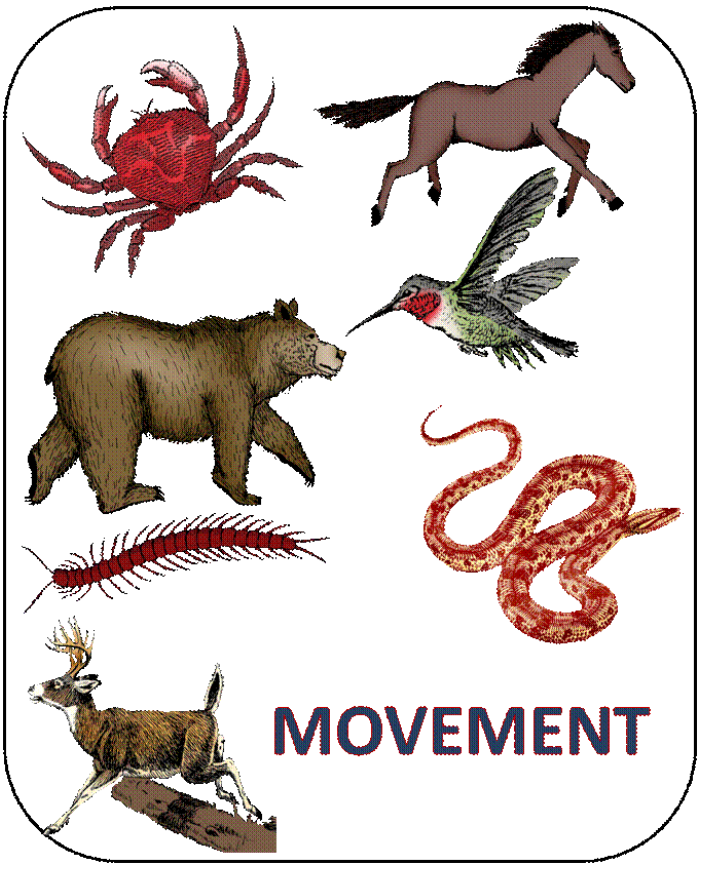
Move 'em Out



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General Information: Movement

Language Goals:

- the children should be able to follow the sentence structure of "I am…", "It is…", "I can…", "It can…" when directed at them in conversation
  - an outstanding goal for the children is to have them begin to incorporate the simple sentences into their working language
- at the conclusion of this module the children should feel comfortable using basic movement vocabulary in their everyday language
  - this goal applies to children who are working within the level of "output"

Science Goals:

- at the conclusion of this module the children should recognise grasshoppers and crickets
  - an outstanding goal is to have the children indentify the differences between grasshoppers and crickets
- the children should understand there are varieties in penguin colour and size
- the children should understand which movements are highly associated with the animals explored in this module

Word Definitions:

- **Orthoptera** = an order of insects, including cockroaches, mantids, walking sticks, crickets, grasshoppers, and katydids, characterised by leathery forewings, membranous hind wings, and chewing mouthparts
- **grasshopper** = an herbivorous, orthopterous insect, of the family Acrididae, having the hind legs adapted for leaping and having chewing mouth parts, can grow up to 13 cm (5") in length
- **cricket** = an orthopterous insect of the family Gryllidae, characterised by long antennae and stridulating organs on the forewings of the male, can grow up to 5 cm (2") in length
- **penguin** = any of several flightless, aquatic birds of the family Spheniscidae, of the Southern Hemisphere, having webbed feet and wings reduced to flippers

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.

Animal information:

- Grasshopper facts:
  - **physiology**
    - *body:* head, thorax, abdomen, six jointed legs, two pairs of wings, two antennae, hard exoskeleton
    - *colouration*: green, brown, yellow, olive-green
    - *size*: up to ~5"/13cm in length

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- **habitat** – The grasshopper can be found, worldwide, in areas such as: tropical, grasslands, prairies, desert, and disturbed land (Pfadt, 2002; Wikipedia, 2009; Mrs. Brady's Class, 2009).
- **interesting information –** Grasshoppers are larger than crickets. Grasshoppers have short antennae. The hearing organ of a grasshopper is located along the sides of the first abdominal segment. Grasshoppers are herbivorous. (Pfadt, 2002)

➢ Cricket facts:
- **physiology**
  - *body*: head, thorax, abdomen, six jointed legs, two pairs of wings, two antennae, hard exoskeleton
  - *colouration*: brown, black, green, dark yellow, red
  - *size*: ~.3"/10mm – 2"/60mm in length
- **habitat** – Crickets are found, worldwide, in areas such as: wooded habitats, grasslands, prairies, and desert. Crickets are mostly nocturnal animals (Wikipedia, 2009).
- **interesting information** – Crickets will cannibalise each other when food is scarce. Male crickets chirp by rubbing their wings together, and only the male crickets chirp. The amount of chirps produced by a cricket depends on the ambient temperature (the colder the less chirps) (Wikipedia, 2009).

➢ Emperor penguin facts:
- **physiology**
  - *body*: head, bill, core body, two feet, two wings/flippers, extremely high density of small feathers covering the entire body except for feet and bill
  - *colouration*: head, throat, back, dorsal part of wings/flippers and tail are black, ventral part of wings/flippers and belly are white, ear patches are yellow, upper part of the bill is black, the lower part of the bill can be pink, orange or lilac
  - *size*: ~4'/122cm in height and ~22-37kg/48-82lbs
- **habitat** – The Emperor penguin is the only animal endemic to Antarctica.
- **interesting information** – Emperor penguins have solid bones which aid in deep sea diving. They can thermoregulate within a large range (-10°C/ 14°F - +20°C/68°F) without changing their metabolism, although below -10°C/14°F the metabolism increases significantly. The Emperor penguin has the highest feather density of any bird species. (Antarctic Connection, 2009; Wikipedia, 2009)

➢ Gentoo penguin facts:
- **physiology**
  - *body*: head, bill, core body, two feet, two wings/flippers, feathers covering the entire body except for bill and feet
  - *colouration*: head, throat, back, tail, dorsal part of wings/flippers are black, belly and a strip extending from one eye over the head to the other eye is white, feet and bill are orange
  - *size*: ~20-36"/51-90cm and 5-8.5kg/11-19lbs
- **habitat** – The Gentoo penguin has the widest range of any penguin, found on sub-Antarctic islands, the Antarctic Peninsula, the Falkland islands, South Georgia islands, and the Kerguelen islands. The Gentoo penguin nest in rocky places.
- **interesting information** – The Gentoo penguin has the most prominent tail of all penguins. Males can sometimes entice a female by offering her a nice stone which she will use for nesting. (Antarctic Connection, 2009; Wikipedia, 2009)

➢ Humboldt penguin facts:
- **physiology**

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        - *body*: head, bill, core body, two feet, two wings/flippers, feathers covering most of body except for bill and feet
        - *colouration*: head, bill, breast, back, dorsal part of wing/flipper and feet are black, belly, throat and a narrow band around eyes are white, the base of the bill is fleshy pink
        - *size*: 26-28"/65-70cm and 4-6kg/8-13lbs
    - **habitat** – The Humboldt penguin is located in South America, on the rocky coasts of Chile and Peru.
    - **interesting information** – The penguin is named after naturalist Alexander von Humboldt. Humboldt penguins are social animals and will live in very large colonies. They will dig into the ground to protect themselves from the heat or predators.
- Snares penguin facts:
    - **physiology**
        - *body*: head, bill, core body, two feet, two wings/flippers, feathers covering most of the body except for bill and feet
        - *colouration*: head, back, dorsal part of wings/flippers and tail are black, throat, belly and feet are white, a yellow crest extending from the bill to the back of the head, the bill is orange
        - *size*: 20-28"/50-70cm and 2.5-4kg/5.5-9lbs
    - **habitat** – Snares penguins are endemic to New Zealand. They breed on the grouping of south New Zealand islands known as The Snares.
    - **interesting information** – The islands where the penguins breed has a status of "high protection", yet still the Snares penguin is considered highly vulnerable to extinction. (Antarctic Connection, 2009; Wikipedia, 2009)

Investigation Possibilities:

- grasshopper exploration:
    - always gently handle the animal
    - keep the area around the grasshopper or cricket free from obstacles and debris
    - have the children be as quiet and still as possible while the animal is out of the carrier/enclosure
        - the animal can 'hear' the movement and noises and might be too frightened to move
    - since grasshoppers and crickets are ectothermic animals keep them in a warm area before, during and after you work with them
        - if the animal is too cold it will not move very much, therefore your investigation will not be successful
        - an optimal temperature is around 25°C/77°F
    - since the grasshopper or cricket might jump in any direction, place the animal in the middle of the table or floor
    - the easiest way to measure how far a grasshopper or cricket jumped is by placing the animal as close to possible to the 'starting' mark then as soon as the animal lands after the first jump cover it gently with your hand and measure the distance
    - depending on the size of the grasshopper or cricket the jumping distance should be shorter than the children's
        - However, if the cricket takes flight (depending on the species) and the distance is longer than the children's talk about what physical feature allowed the cricket to extend its jump.

Educator Hints:

- As a result of the similarities between the animals explored in this module, please encourage the children to describe the animals as much as possible. Point out the small variations of each animal; the difference in markings on the penguins, the

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differences in antenna length of the grasshopper and cricket. This small attention to detail is going to help create the attributes a naturalist needs.

Video Links:

- Session 3
  - 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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Movement
Session 1

Materials:

- flash cards (*F.C. 1-8*)
- poster board/felt board with 'hook and loop' fasteners/adhesive pieces for attaching

Words:

- RUN, CRAWL, HOP, JUMP, SLITHER, GALLOP, CRABWALK
- move, play a game, your turn, my turn, his turn, her turn, sing, song
- "The (snake) can…", "The (snake) …", "I can…", "I am…", "I say…"

Activity:

- **how animals move** *(F.C. 1-8)*
  - briefly explain this lesson is about how animal movement
    - when you say 'move' wiggle around where you are, so the children begin to make connections between the word and body movement
  - bring out the blank poster board with 'hook and loop' fasteners pieces already attached
  - go through each F.C.
    - as you introduce the F.C. say the word, use the word in a simple sentence, and then do the action
      - "The cheetah is running." or "The cheetah can run."
    - movements for each F.C.
      - *run* = run a short distance from A to B
      - *jump* = a standing jump over a short distance from A to B
      - *crawl* = on hands and knees crawl a short distance from A to B
      - *slither* = laying on your stomach move across the floor from A to B
      - *gallop* = on your hands and knees mimic the movement of a horse
      - *hop* = with two feet hop up and down on the same spot
      - *crabwalk* = sit with your bum on the floor, knees up, and feet planted in front of you. Put your hands behind you on the floor and raise your bum off the floor. Your hands and feet should be supporting all your weight. Now move a short distance from A to B by moving your hands and feet in coordination
        - *we used this movement more as an exercise for coordination than as a focus on animal movement*
      - *fly* = wave your arms up and down in a standing position
  - once you are finished with the word attach it to the poster board and begin with the next F.C.
  - repeat the steps above
  - once you have gone through all the F.C. ask the children which actions they CAN do by pointing at the F.C. and nodding your head yes or shaking your head no (humans can run, jump, hop and crawl)

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- "Can you run?" (nod head)
- "Can you fly?" (shake head)

- **let's play a game**
  - lay the F.C. face down in the middle of the circle
  - demonstrate the game with another teacher first
    - once the children understand the rules begin the game
  - *the game*:
    - when it is the child's turn, the child chooses 1 card from the middle of the circle
    - the child looks at the card and lets the other children see the card as well
      - **Extra bonus: encourage the children to say the word in English before they do the activity**
      - either way, if they say the word or not, repeat the word out loud each time the card is revealed so the children continuously hear what the word is in English
    - then have the child do the action depicted on the card
    - if the action is correct the child returns the card to the middle of the circle and it is the next child's turn
    - if the action is incorrect encourage the child to keep trying until the correct action is performed
      - if the children are young or timid perform the action with them the first, then invite them to repeat the action alone
    - go through all the children (they may reuse the cards)
- **let's sing**
  - "10 Little Monkeys": replace the "jumping" word with your choice of movement word

10 Little Monkeys (Unknown author)
10 little monkeys jumping on the bed
1 jumped up and hit his head
Mom called the doctor the doctor said…
"No more monkeys jumping on the bed!"
9 little monkeys running on the bed
Etc.

OR/AND "Everybody Jump" chant

Everybody Jump (Unknown author)
Everybody jump, everybody jump
Everybody jump with me (2X)
Everybody run, everybody run
Everybody run with me (2X)
Etc.

- **let's play a game**
  - I Say (simplified Simon Says)
  - have the children stand facing the teacher or 'caller'
  - the teacher or 'caller' gives the command for the children to do a movement using the phrase "I say… (jump)etc."
    - use the same movements as depicted in the previous game

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        - if the children are young or timid continue using the F.C. in conjunction with the command
    - the children have to do the movement called out by the teacher or 'caller'
    - the child who does the movement first is the next 'caller'
        - **optional** allow the children to continue the movement for a little while so all have a chance to 'use up energy'
    - go through a few rounds of the game
    - **optional**
        - play the game with the "Simon Says" rules only using the movement words introduced during the lesson

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Environmental Exploration
Session 1

Materials:

- poster board
- flash cards (*F.C. 1-4*)
  - for the 2nd option have at least 3 sets of the F.C

Activity:

- **as one group for younger children**
  - go out into the park and remain as a large group
  - show the children one of the action F.C. and ask if they can find an animal which moves like the action depicted
    - walk through the park and look for an animal
  - once the children have found an animal observe the animal for a short while
    - while the children are watching the animal talk about the animal's movement with the children
      - use the word in various simple sentences for reinforcement
  - have the children do the movement associated with that action
  - repeat the steps until most of the relevant actions are observed
    - not necessary to find 'gallop', 'crab walk', 'slither'
- **as small groups for older children**
  - divide the children into groups of 2 or 3 with an adult for each group
  - create a 'home-base' for the children to return to
    - leave the blank poster board at the 'home-base'
  - give each group 1 action F.C. and ask them to go out into the park and look for an animal moving as the F.C. depicts
  - once the group has found an animal they come back to the teacher and can adhere their F.C. onto the poster board
    - for fun, and reinforcement, have each group do the movement associated with the F.C. once they return to the 'home-base'
  - the group can now choose a 2nd F.C. and explore the park again
    - repeat steps above
    - continue as desired

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Movement
Session 2

Materials:

- 2 pieces of string ~2m long
- masking tape
- flash cards (*F.C. 9, 10, 13, 14*)
- grasshopper worksheet (*page 6*)
- crayons
- glue
- scissors

Words:

- JUMP, HOP, LONG, SHORT, HIGH, LOW, GRASSHOPPER, CRICKET
- sing, song, craft, glue, cut, colour, measure, move, insect, legs, wings, head, body, antennae
- "How high can you jump?", "How long can you jump?"

Activity:

- **let's sing**

  "*The Walking Song*"
  (tune of *Are You Sleeping*, copyright and author unknown)
  Walking, walking (children walk in place or in circles)
  Walking, walking
  Hop, hop, hop (children hop in place or in circles)
  Hop, hop, hop
  Running, running, running (children run in place or in circles)
  Running, running, running
  Now we stop, (children stop)
  Now we stop.
  (repeat as necessary and add appropriate wording)

- **review last session's movement words**
  - ask the children if they remember any of the words learned the previous session
    - encourage those who remember the words to speak the words out
  - if the children do not remember do a quick review of the verbs
    - use the previous session's F.C. to stimulate their thinking *(F.C.1-8)*
- **introduce the new vocabulary for this session** *(F.C. 9, 10)*
    - with each new word include both the F.C. and movement while introducing the word
  - *long* = stretch your hands wide
  - *short* = bring your hands close together
  - *low* = bring one hand close to the floor
  - *high* = stretch your hand high over your head
    - **extra activity for further reinforcement**
      - hand out the F.C. to various children and ask if they can "act" out their card
- **investigation**

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- bring out the pieces of string and explain to the children that you are going to investigate how *long* and *high* the children can jump
  - adhere a piece of masking tape to the floor and use that as your starting line
  - stretch one piece of string from the starting line to its max and adhere both ends to the floor
- use either a volunteer or another teacher to demonstrate this activity
  - ask the volunteer to come and stand with their toes on the starting line
  - have the volunteer jump as far as they can
  - once the volunteer has jumped, ask them to remain where they are
  - use the masking tape to mark off how far the volunteer has jumped along the string (write their name on the tape so you can remember the length)
- now invite the children one by one to come to the starting line and see how far they can jump
  - encourage the children to cheer for each child as they take their turns
  - **extra activity for further exploration**
    - once all the children have completed their jumps you can use the string to go around and compare their jumping distances to the distances between objects within the classroom or schoolyard
      - "Wow! 5 children can jump from beside the table into the reading area." etc.
- bring the children back into a circle again and tell them they are going to investigate how high each of them can jump
  - with masking tape attach the second piece of string to the bottom of a wall
  - stretch the string straight up and attach the other end to the wall as well
- ask for a volunteer again and have them stand with their back against the wall, with the string behind them
  - ask the volunteer to jump as high as they can
    - either watch the volunteer closely to see how high they can jump or quickly mark the wall at the peak of their jump
  - mark off the height of their jump with a piece of tape along the string
- invite all of the children to participate and record the results

➢ **introduce the animal for this session** *(F.C.13, 14)*

- grasshopper/cricket
- show the children a picture of a grasshopper/cricket and introduce the English word for grasshopper/cricket
- point out the variations in colour on both the grasshopper and cricket
- point out the size of the grasshopper and cricket
  - point out the grasshopper is bigger than the cricket
  - ask the children if they can spot any other differences
- ask the children how long they think grasshoppers/crickets can jump

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- compare and contrast: are grasshoppers/crickets long jumpers? How long? Are they able to jump high? How high?

- **grasshopper craft** (page 6 of material download)
  - colour the grasshopper picture and cut out
  - colour the background picture
  - paste the grasshopper onto the background picture

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Environmental Exploration
Session 2

Materials:

- carrying case for grasshoppers and crickets
- 2 crickets and/or 2 grasshoppers
  - if you do not have access to live grasshoppers or crickets you can use a model of the insects
- sections of string used during the previous lesson with the names still attached (only length)
- masking tape
- felt pen/writing utensil
- zookeeper

Activity:

- **invite the children on a journey to the zoo**
  - if you are not able to visit a zoo one option is to take the class into a natural setting of the schoolyard
- **visit the insect exhibit**
  - assemble the children around the grasshopper terrariums
    - ask the children if they can identify the various parts of the insect
      - legs, wings, antennae, eyes, colour
  - choose 2 grasshoppers and 2 crickets
    - gently capture the insect (or have the zookeeper capture the insect) and safely put them in a carrying case
    - **if the facility where the grasshoppers are kept is not appropriate for a lesson move to a more suitable area**
- **observation of how a grasshopper/cricket moves**
  - assemble the children around a table and explain that today the children are going to observe how a grasshopper/cricket jumps
    - adhere masking tape to the top of the table to identify the starting line
      - **extra activity for further exploration**
        - if the children understand more English or are older, ask how long they think the grasshopper/cricket will jump
        - or which insect will jump longer (the grasshopper or cricket)
  - ask the children to be very quiet and very still so the grasshopper/cricket will feel comfortable out of its carrying case
  - once the children are quiet bring out one grasshopper/cricket and gently place it on the table near the starting line
  - wait quietly for the grasshopper/cricket to jump (the animal might need a little time to adjust to its new environment)
  - once the animal has jumped, mark off the length of the jump with a piece of tape
  - repeat for each animal
  - since the height of a grasshopper/cricket jump is very difficult to investigate within a kindergarten setting, simply discuss how high the grasshoppers/crickets were observed to jump
  - once you are finished with all the insects place the carrying case in a quiet spot of the lesson area
  - use the string from the previous lesson to compare the distance of the insect's jumps to the children's jumps
    - children understand they can jump, but they have no comparison standards as to how far an insect can jump. This comparison is to

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help them begin the process of creating those comparison standards.

- ("Look, grasshopper number 1 did not jump as far as any children.")
- ("Grasshopper number 2 can jump the same distance as 2 children.")

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Movement
Session 3

Materials:

- flash cards (*F.C. 11, 12, 15-18*)
- various samples of feathers (most importantly penguin feathers)
- medium sized soft ball
- computer/DVD player/video watching device
- video of penguins
  - 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**

Words:

- SWIM, SLIDE, EMPEROR PENGUIN, GENTOO PENGUIN, HUMBOLDT PENGUIN, SNARES PENGUIN
  - (for younger children simply using PENGUIN is more appropriate than the different specie names)
- game, ball, various colours, various textures, feather, bird, feet, head, wing, beak, fly

Activity:

- **let's sing**
  - review the song learned the previous session
  - ask the children if they would like to invent new verses using the vocabulary words learned previously
- **new animal vocabulary** *(F.C. 11, 12)*
  - introduce the new English vocabulary using the F.C.
    - go through each movement F.C.
    - act out the movement F.C. when you say them
      - *slide* = swoop your hand from up high to down low, following an imaginary slide
      - *swim* = use your arms in a 'breast stroke' swimming motion while you are seated
- **let's play a game**

  Action Ball Game
  - the children sit in a circle facing inward
  - one teacher/child starts by holding a ball in their hands
  - the teacher/child chooses one of the 2 new vocabulary words and says it out loud
  - then the teacher/child picks one of the other children in the circle and throws/rolls the ball to that child
  - the 2nd child catches the ball and then has to do the corresponding arm action said by the "thrower"
    - 1st player: "Fly"
    - (throws/rolls the ball to the 2nd player)
    - (2nd player catches the ball, sets it in their lap and waves their arms)

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- 2nd player: "Swim"
- (throws/rolls the ball to the 3rd player)
- (3rd player catches the ball, set it in their lap and swims with their arms)
- continue until everyone has had a turn

- **introduce the penguin** *(F.C. 15-18)*
  - for each penguin F.C. briefly point out the various colours and features depicted
    - this is meant to begin the process of noting variety in penguins
    - point out the wings and feet of the penguin and ask the children if the penguin can fly in the sky
      - no
    - point out the wings and feet of the penguin and ask the children if the penguin can swim
      - yes
  - bring out different samples of feathers
    - briefly discuss the colours and textures of each feather
    - ask the children if they know which feather belongs to the penguin
      - once a decision has been made by the children either confirm the decision they made or state the correct answer
    - put the other feathers away
    - **extra activity for further exploration**
      - let all the children feel the penguin feathers
        - ask the children to try and describe what they feel like
      - penguin feathers are much smaller than other bird feathers
        - why are penguin feathers small and not large like other birds
      - the Emperor penguin has a lot more feathers covering its body than other birds
        - why does the Emperor penguin have so many feathers
        - see General Information
  - show videos of penguins moving

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Environmental Exploration
Session 3

Materials:

- zookeeper
- medium sized ball
  - **optional**

Activity:

- **penguin enclosure observation**
  - at the penguin enclosure talk about what you see
    - penguins, water, rocks, etc.
    - ask the children to think about 'why' some of the articles are in the enclosure
- **penguin observation**
  - how many penguins can you see?
  - what are they doing?
    - swimming, eating, walking, etc.
  - have your zookeeper single out an appropriate penguin and bring it closer for the children to observe
  - point out all the body parts of the penguin and talk about them with the children
  - make special mention of the feathers and wings and ask the children if the penguin can fly
    - no
      - **extra activity for further exploration**
      - if the children have the language capabilities talk about this odd situation of a bird that does not fly
        - penguin wings do not allow it to fly in the air BUT are excellent for 'flying' in the water
        - feathers that are designed for aquatic life more than flight (insulation, etc.)
  - talk about the feet of the penguin
    - their feet are better adapted for aquatic manoeuvrability
      - the feet help the bird glide easily through the water
      - the feet 'steer' the animal through the water
- **extra activity**
  - if you have additional time bring the children to a safe playing area and play another round of the *Action Ball Game*

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