Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge: Skull Box Indentification Key

Skull box 1	Snowshoe hare
Skull box 2	Wolverine
Skull box 3	Arctic ground squirrel
Skull box 4	Lynx
Skull box 5	Caribou
Skull box 6	Grizzly bear
Skull box 7	Weasel (Ermine)
Skull box 8	Gray wolf
Skull box 9	Collared lemming
Skull box 10	Red fox

All skulls are full scale.

These skull boxes were created by the U.S. Fish and Wildlife Service with assistance from the Fairbanks North Star Borough School District and Toyota USA Foundation. Use of these skull boxes by educators for classroom and field purposes is authorized and encouraged. All other uses, please contact Cathy Curby at <arctic_refuge@fws.gov>.

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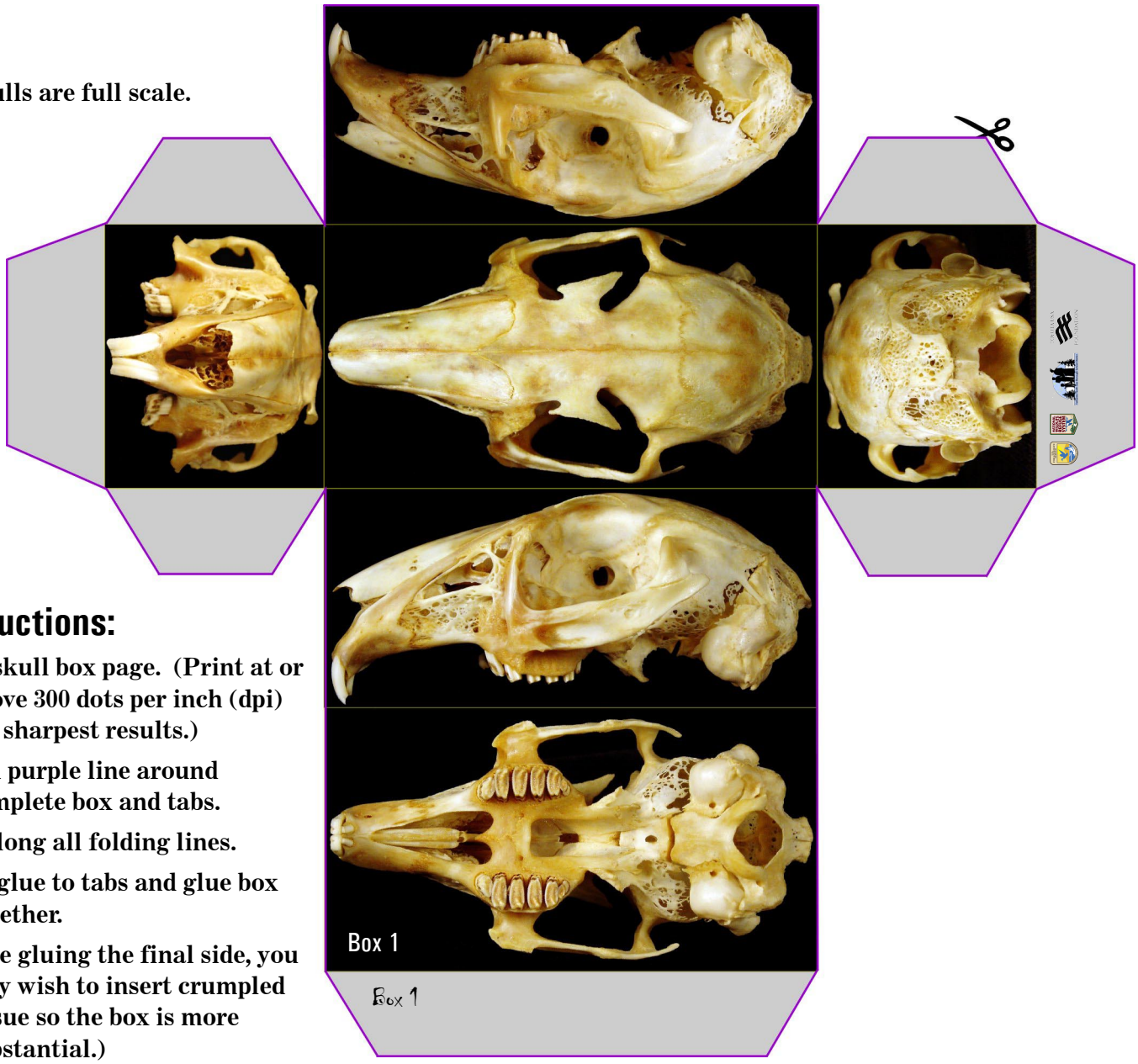
Mammals of the Arctic National Wildlife Refuge:
Skull Box 1

(See Skull Box identification sheet for skull identities.)

All skulls are full scale.



Instructions:

Print skull box page. (Print at or above 300 dots per inch (dpi) for sharpest results.)

Cut on purple line around complete box and tabs.

Fold along all folding lines.

Apply glue to tabs and glue box together.

(Before gluing the final side, you may wish to insert crumpled tissue so the box is more substantial.)

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 2* - Instructions

(See Skull Box identification sheet for skull identities.)
All skulls are full scale.

Instructions:

Print skull box pages. (Print at or above 300 dots per inch (dpi) for sharpest results.)

Cut on purple line around all box sections and tabs.

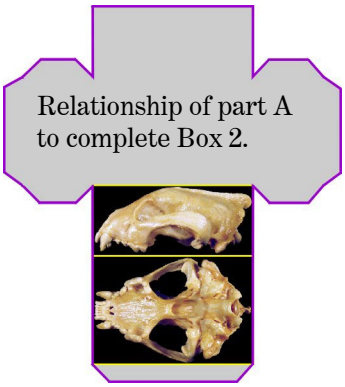
Fold along all folding lines.

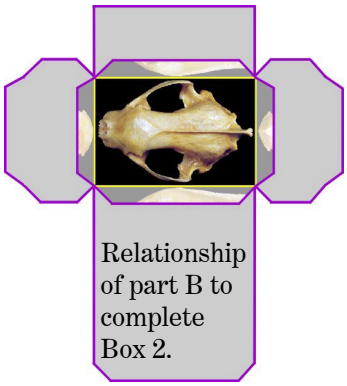
Lay box sections on a flat surface to make gluing easier.

In the order indicated on each photo-tab, apply glue to a photo-tab, then glue that tab under the matching box side. (Refer to the small relationship diagrams to see how each section fits.)

When all the sections of the box are glued together, apply glue to the gray tabs, in the order indicated, to glue together the completed box.

(Before gluing the final side, you may wish to insert crumpled paper so the box is more substantial.)





[This skull was varniwhed, so it has an unusual glossy, yellow finish.]

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*Indicated skulls are from the University of Alaska-Fairbanks Museum collection.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 2* - Part A

Box 2, Part A

Glue this tab last.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 2* - Part B

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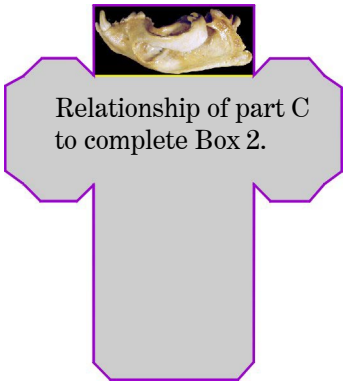
Mammals of the Arctic National Wildlife Refuge:
Skull Box 2* - Part C



Box 2, Part C

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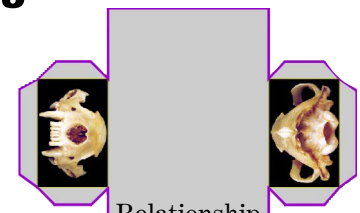
Mammals of the Arctic National Wildlife Refuge:
Skull Box 2* - Parts D and E



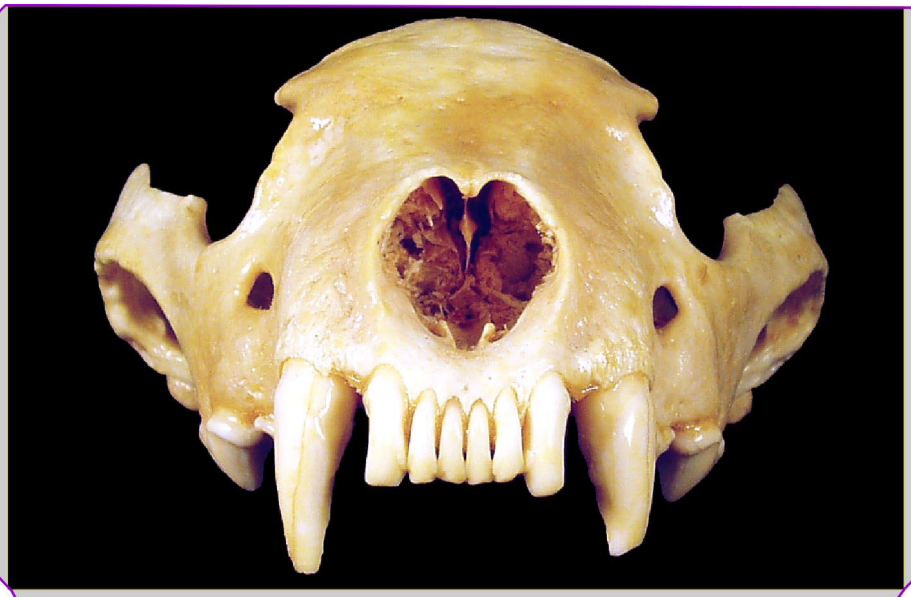
Relationship of parts D and E to complete Box 2.

Glue this tab tenth.

Glue this tab eighth

Glue this tab sixth.

Box 2, Part E



Glue this tab seventh.

Glue this tab fifth.

Box 2, Part D

Glue this tab ninth.

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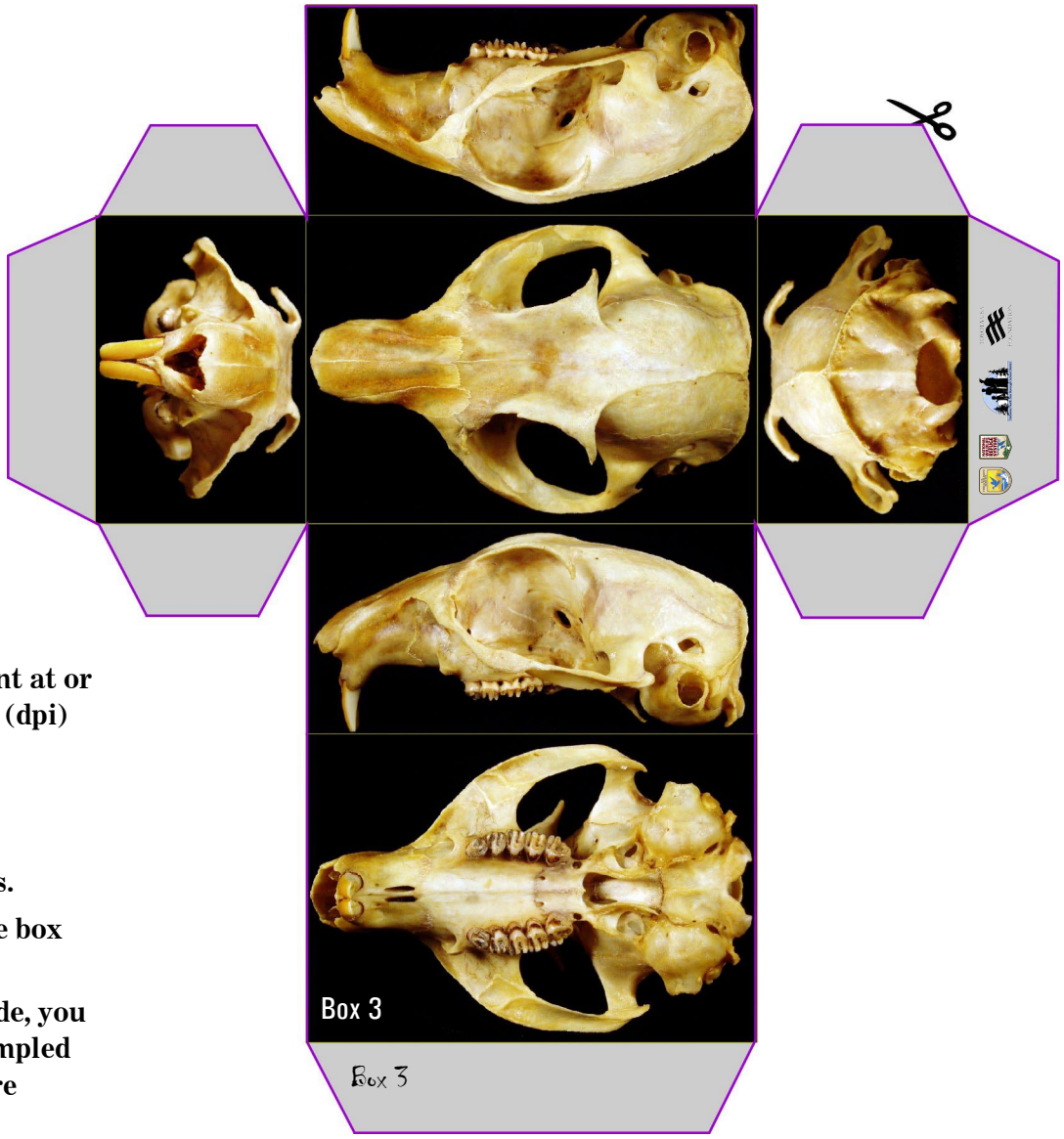
Mammals of the Arctic National Wildlife Refuge:
Skull Box 3*

(See Skull Box identification sheet for skull identities.)

All skulls are full scale.



Instructions:

Print skull box page. (Print at or above 300 dots per inch (dpi) for sharpest results.)

Cut on purple line around complete box and tabs.

Fold along all folding lines.

Apply glue to tabs and glue box together.

(Before gluing the final side, you may wish to insert crumpled tissue so the box is more substantial.)

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 4 - Part A

(See Skull Box identification sheet for skull identities.)

Instructions:

Print skull box pages. (Print at or above 150 dots per inch (dpi) for sharpest results.)

Cut on purple line around all box sections and tabs.

Fold along all folding lines.

Lay box sections on a flat surface to make gluing easier.

In the order indicated on each photo-tab, apply glue to a photo-tab, then glue that tab under the matching box side. (Refer to the small relationship diagrams to see how each section fits.)

When all the sections of the box are glued together, apply glue to the gray tabs, in the order indicated, to glue together the completed box.

(Before gluing the final side, you may wish to insert crumpled paper so the box is more substantial.)

Relationship of part A to complete Box 4.

All skulls are full scale.

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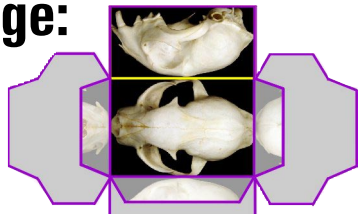
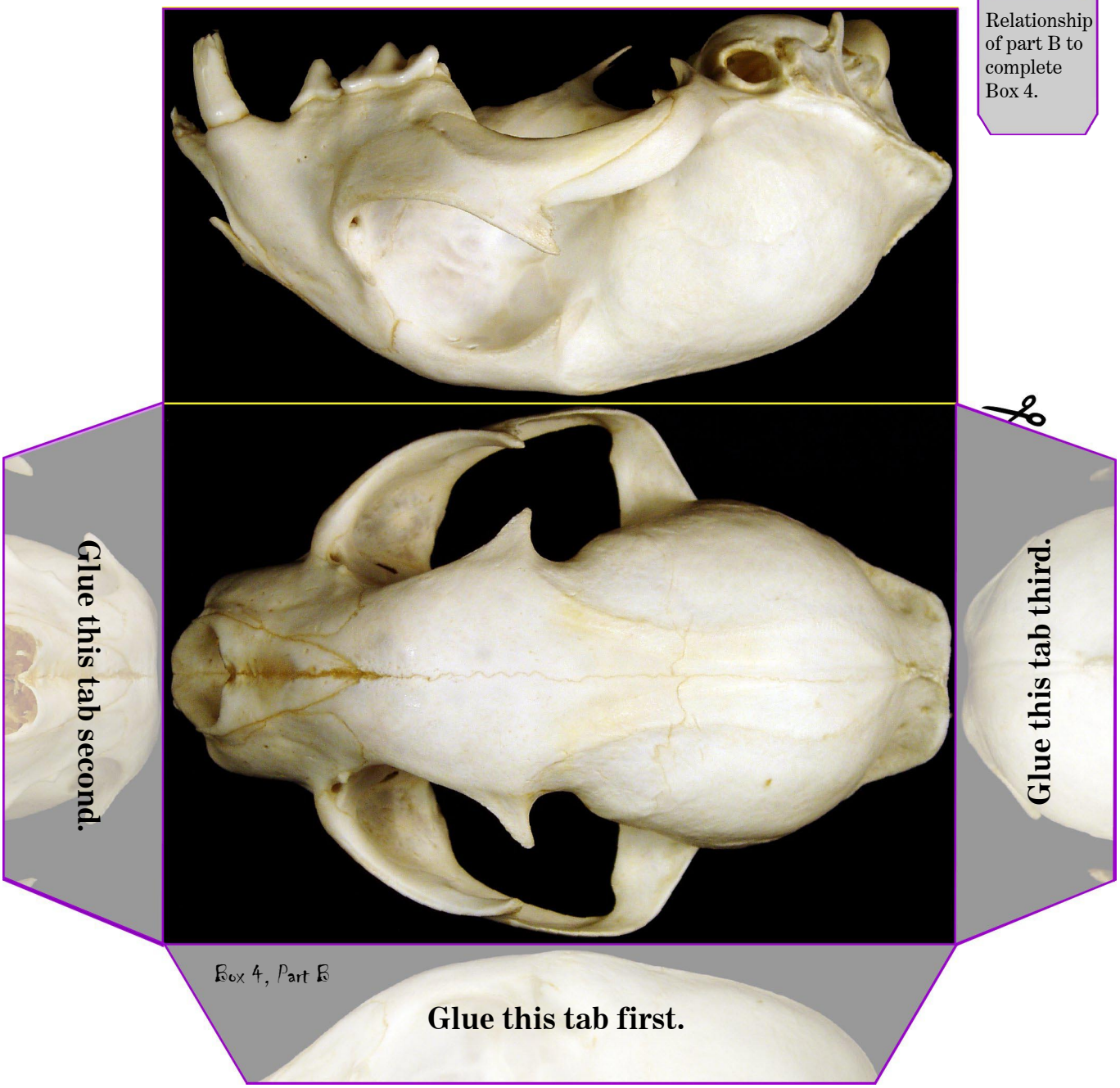
Mammals of the Arctic National Wildlife Refuge:
Skull Box 4 - Part B



Relationship of part B to complete Box 4.



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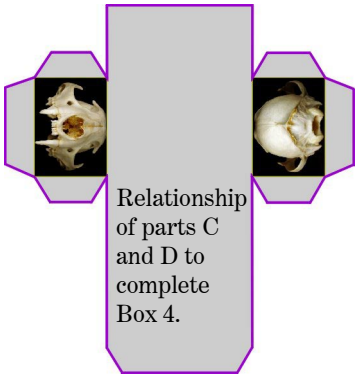
Mammals of the Arctic National Wildlife Refuge:
Skull Box 4 - Parts C and D



Relationship of parts C and D to complete Box 4.

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Caribou Mysteries

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5* - Instructions

(See Skull Box identification sheet for skull identities.)
All skulls are full scale.

Instructions:

Print skull box pages. (Print at or above 300 dots per inch (dpi) for sharpest results. Print on card stock to make a sturdier box.)

Working on one side of the box at a time, cut around the outside of each section and tabs.

In the order indicated on the tabs, apply glue to the *green* photo-tabs, then glue these tabs under their adjacent sections. Repeat with the *yellow* photo-tabs to complete the box side.

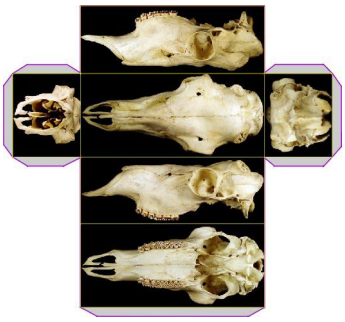
When all sides are complete, lay box sections on a flat surface to make gluing easier.

Continuing in the order indicated, apply glue to each tab, then glue that tab under the adjacent box side. (Refer to the small relationship diagrams to see how each side fits.)

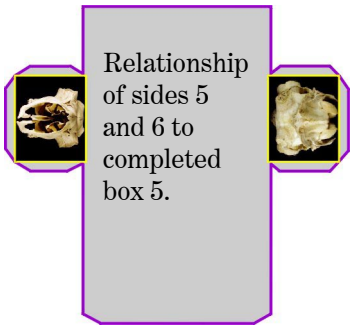
When all the sections of the box are glued together, fold along all folding lines.

Apply glue to the remaining tabs, in the order indicated, to glue together the completed box.

(Before gluing the final side, you may wish to insert crumpled paper so the box is more substantial.)



Relationship of all sides for Box 5.



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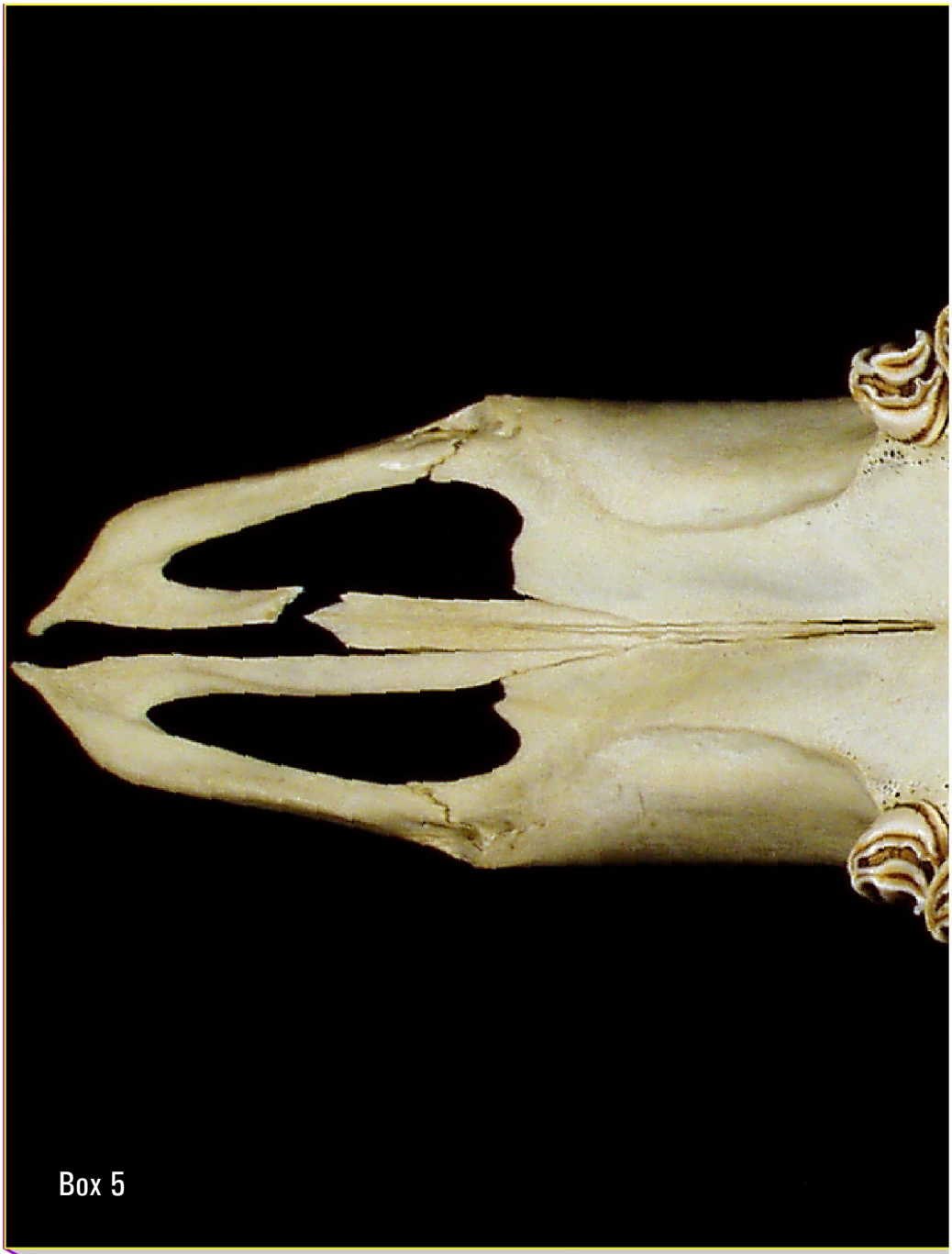
Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Left Portion of Side 1



Box 5, left portion of side 1

All skulls are full scale.

Relationship of side 1 to completed box 5.

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Middle Portion of Side 1

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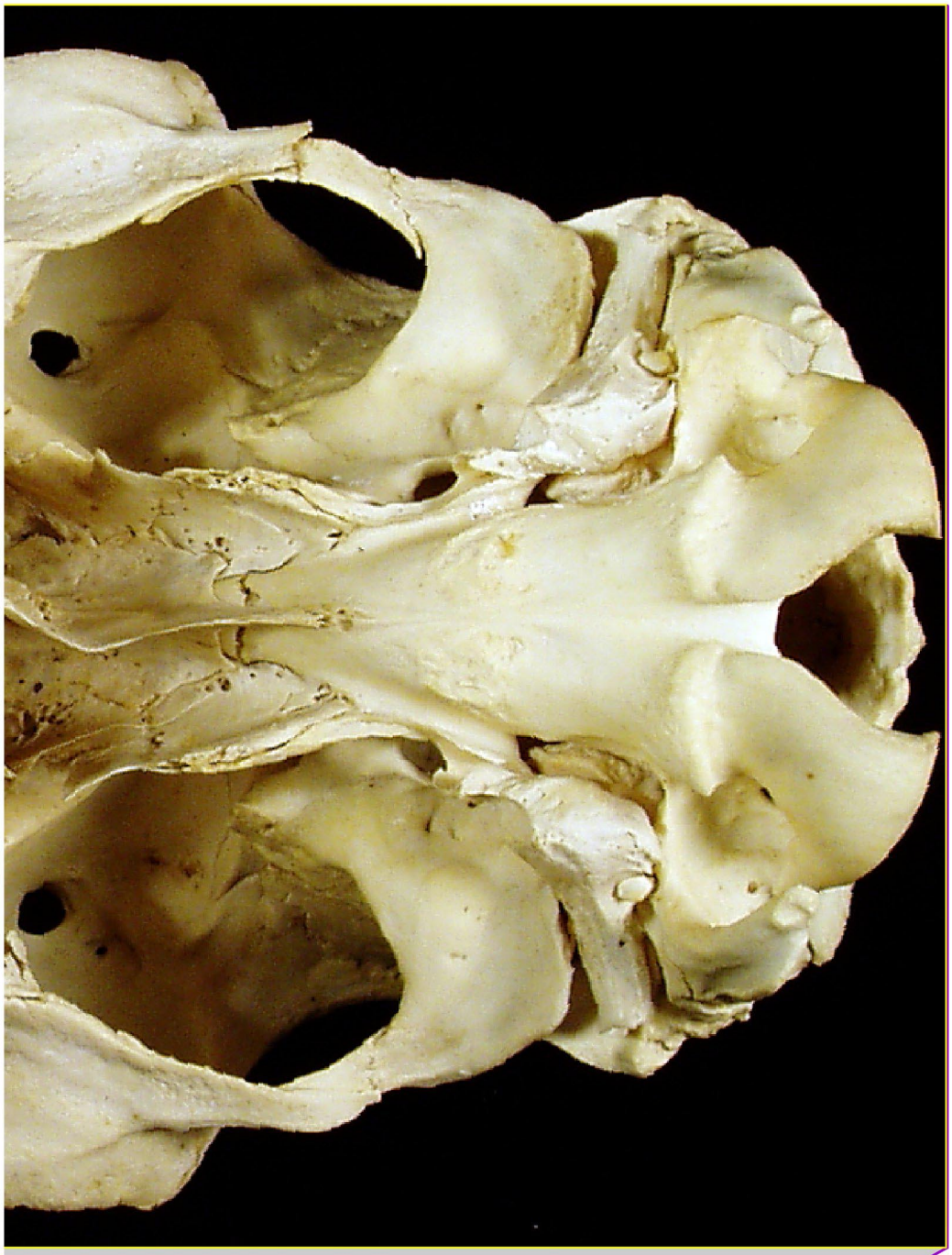
Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Right Portion of Side 1



Box 5, right portion of side 1

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Left Portion of Side 2

Box 5, left portion of side 2

Relationship of side 1 to completed box 5.

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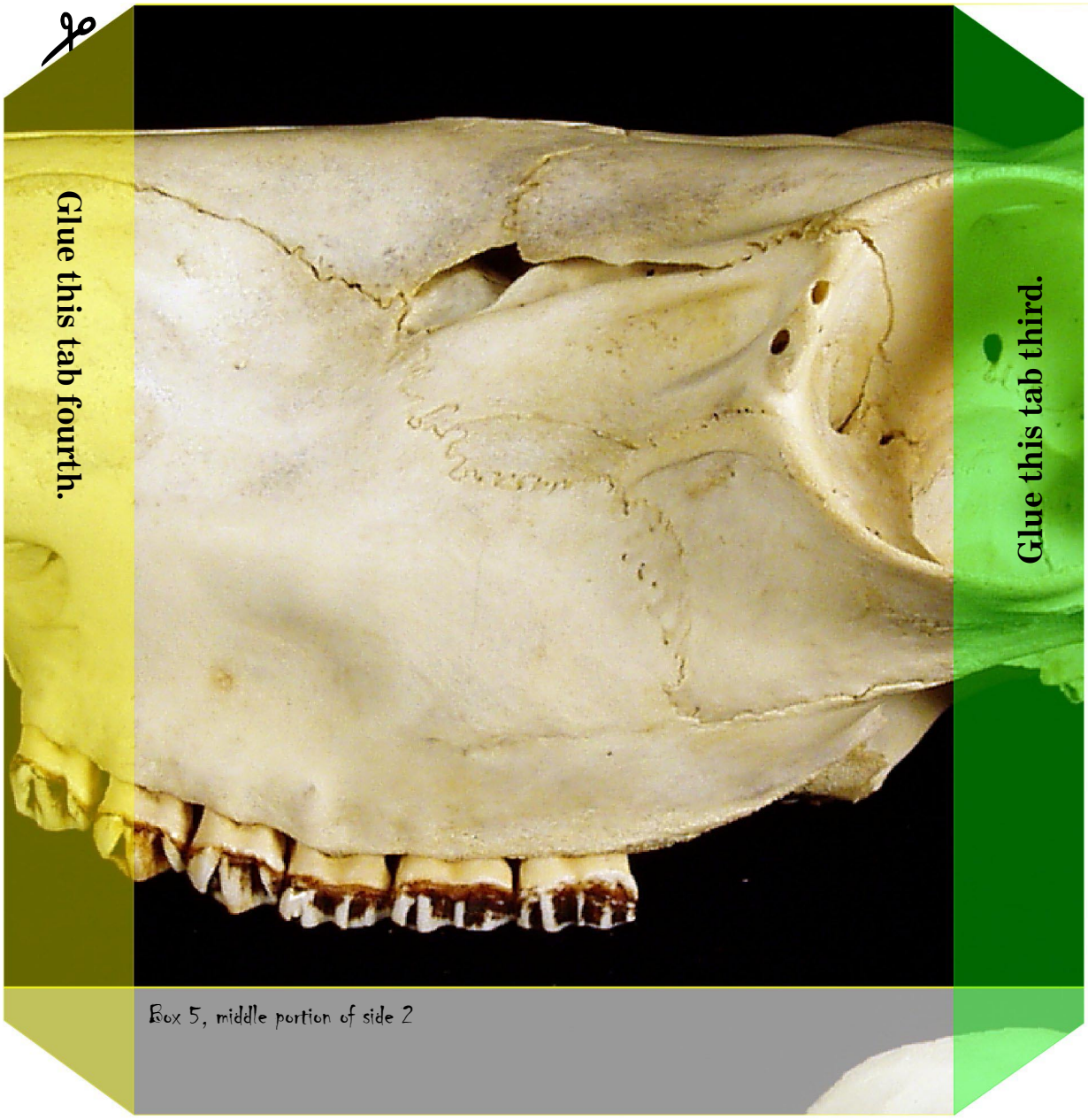
Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Middle Portion of Side 2



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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Right Portion of Side 2

Box 5, right portion of side 2

Glue this tab ninth.

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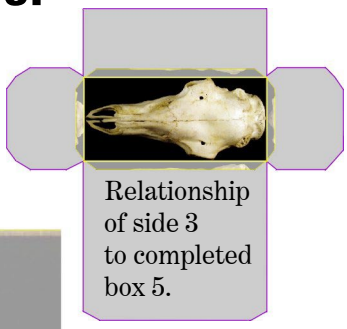
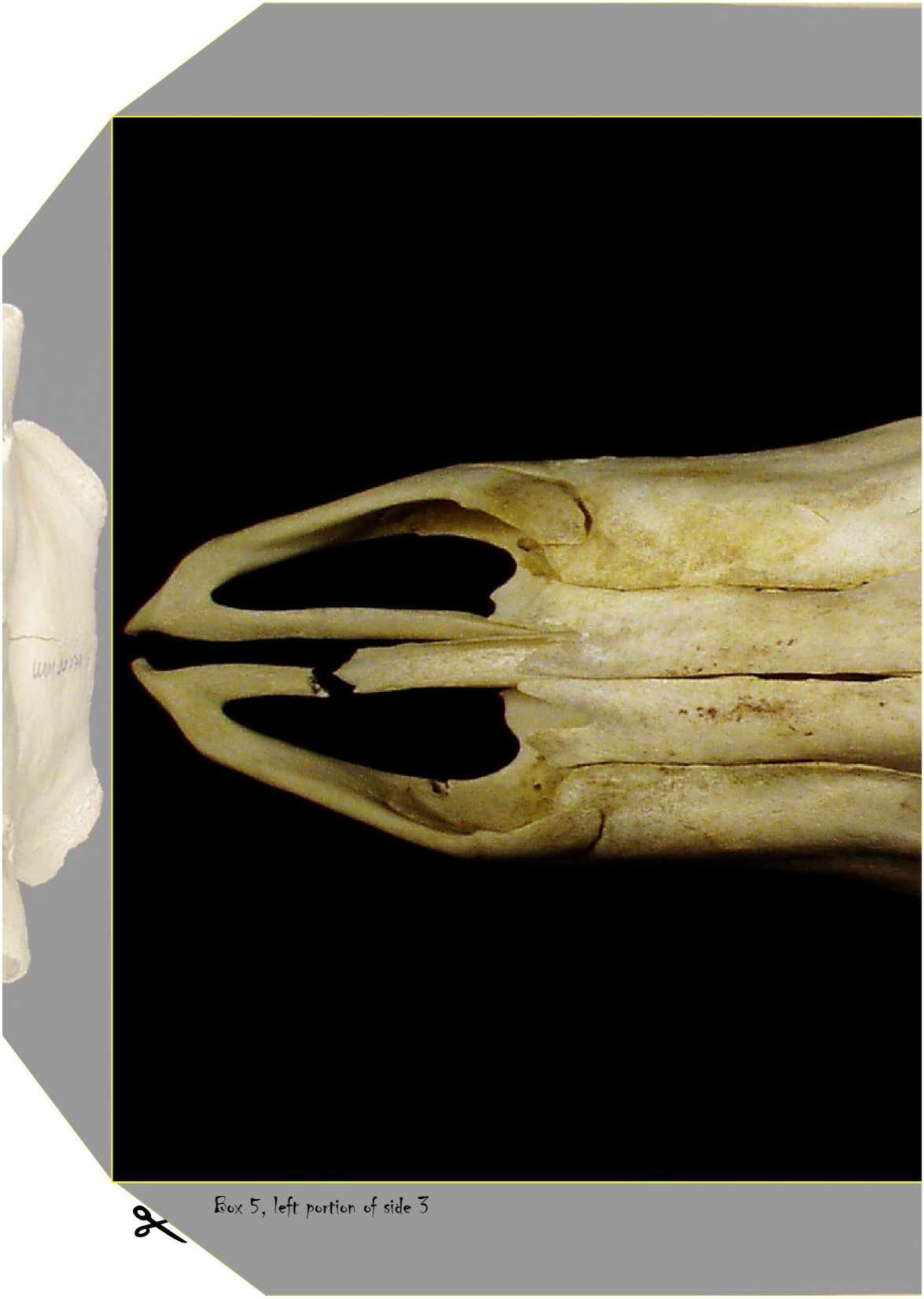
Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Left Portion of Side 3



Relationship of side 3 to completed box 5.



Box 5, left portion of side 3

Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Middle Portion of Side 3

Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Right Portion of Side 3

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Left Portion of Side 4

Box 5, left portion of side 4

Relationship of side 4 to completed box 5.

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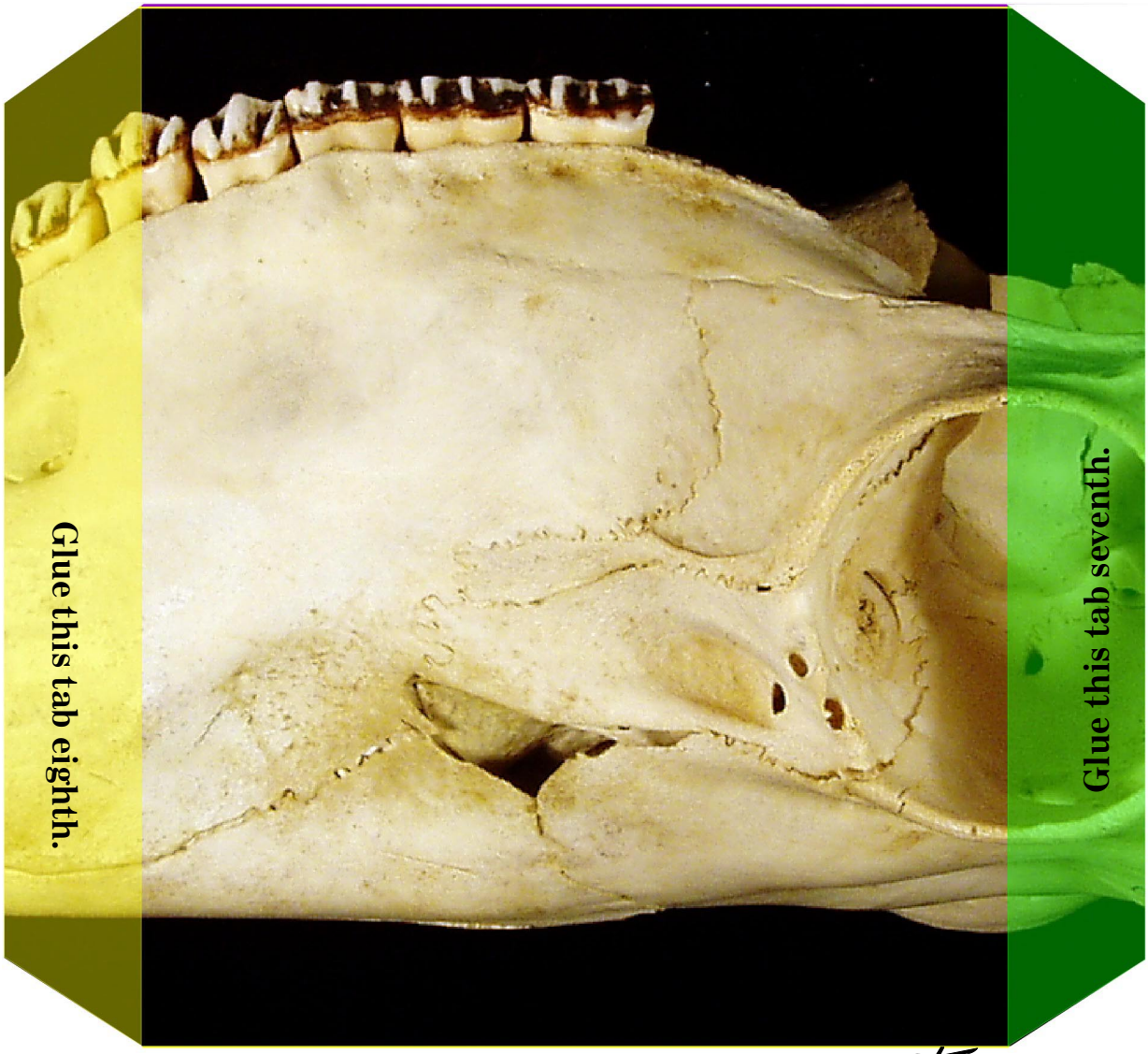
Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Middle Portion of Side 4



Box 5, middle portion of side 4

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Right Portion of Side 4

Box 5, right portion of side 4

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Side 5

Mammals of the Arctic National Wildlife Refuge:
Skull Box 5 - Side 6

Glue this tab seventeenth.

Glue this tab nineteenth.

Glue this tab fifteenth.

Box 5, side 6

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 6* - Instructions

(See Skull Box identification sheet for skull identities.)
All skulls are full scale.

Instructions:

Print skull box pages. (Print at or above 300 dots per inch (dpi) for sharpest results. Print on card stock to make a sturdier box.)

Working on one side of the box at a time, cut around the outside of each section and tabs.

In the order indicated on the tabs, apply glue to the *green* photo-tabs, then glue these tabs under their adjacent sections. Repeat with the *yellow* photo-tabs to complete the box side.

When all sides are complete, lay box sections on a flat surface to make gluing easier.

Continuing in the order indicated, apply glue to each tab, then glue that tab under the adjacent box side. (Refer to the small relationship diagrams to see how each side fits.)

When all the sections of the box are glued together, fold along all folding lines.

Apply glue to the remaining tabs, in the order indicated, to glue together the completed box.

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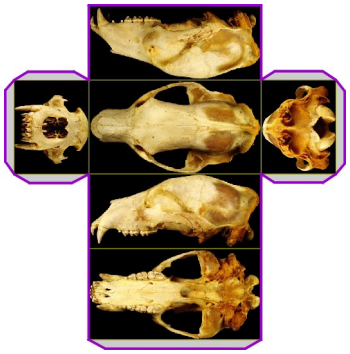
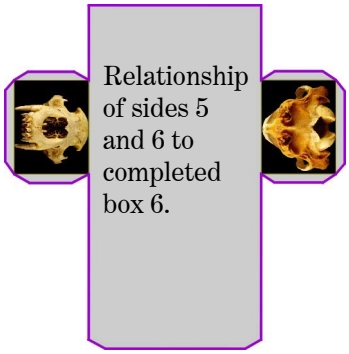


Relationship of all sides for Box 6.



Relationship of sides 5 and 6 to completed box 6.

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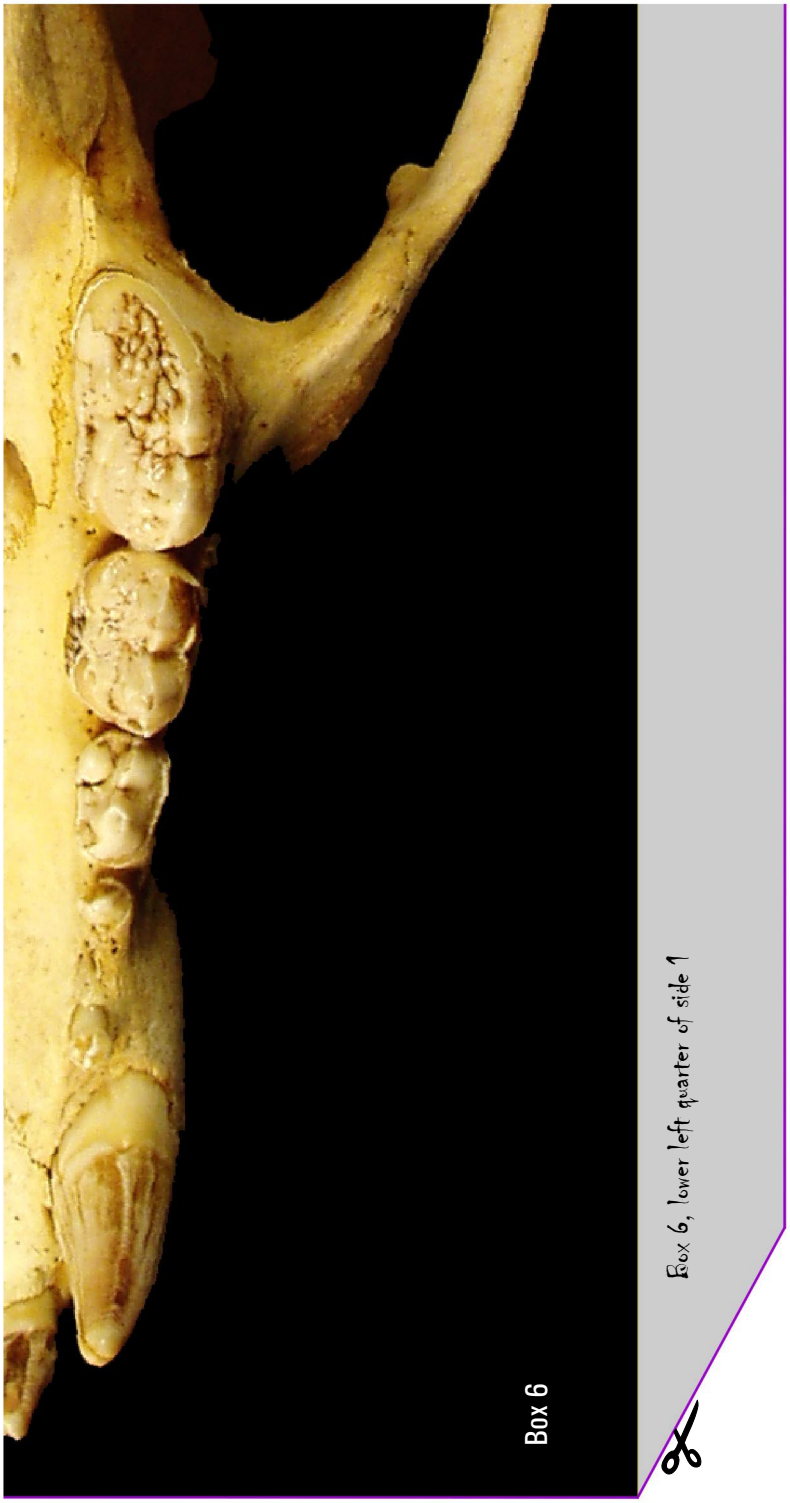
Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Lower Left Quarter of Side 1



All skulls are full scale.

Relationship of side 1 to completed box 6.

Caribou Mysteries

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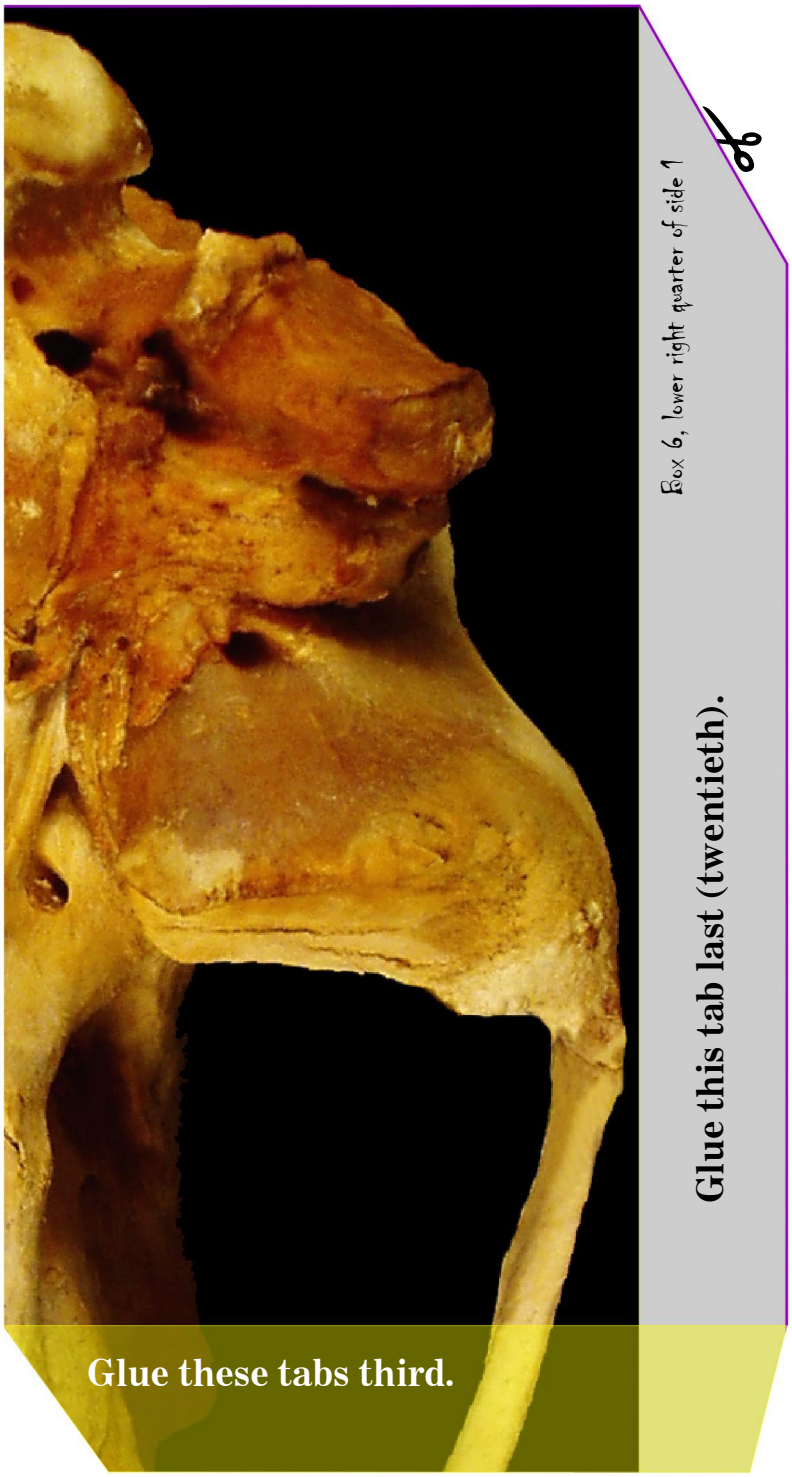
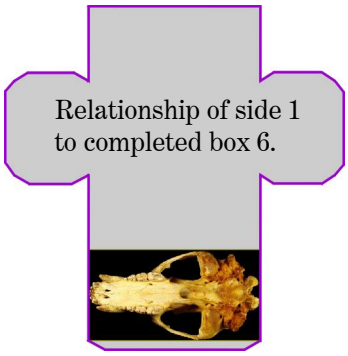
Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Lower Right Quarter of Side 1





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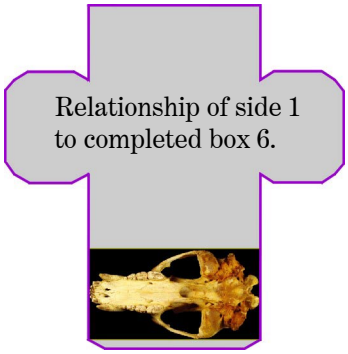
Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Upper Left Quarter of Side 1



Caribou Mysteries

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Upper Right Quarter of Side 1

Relationship of side 1 to completed box 6.

Caribou Mysteries

Relationship of side 2 to completed box 8.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Left Part of Side 2

Box 6, left part of side 2

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Relationship of side 2 to completed box 6.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Right Part of Side 2

Box 6, right part of side 2

Glue this tab ninth.

Glue this tab fourth.

Caribou Mysteries

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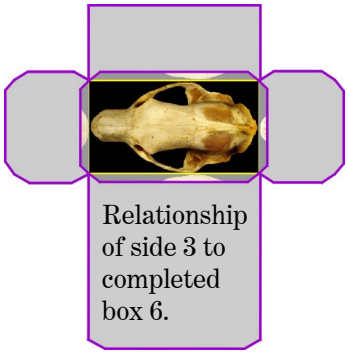
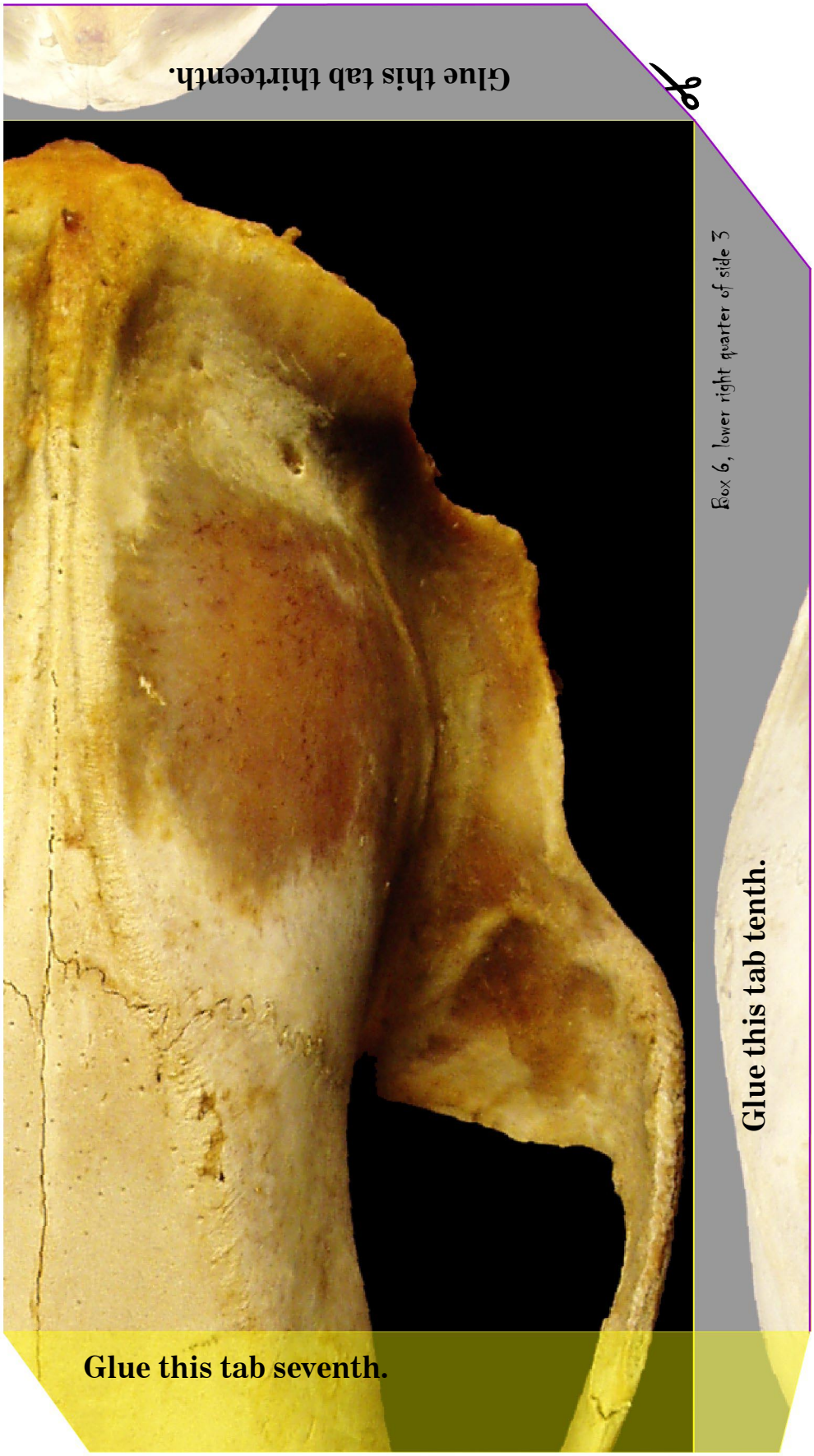
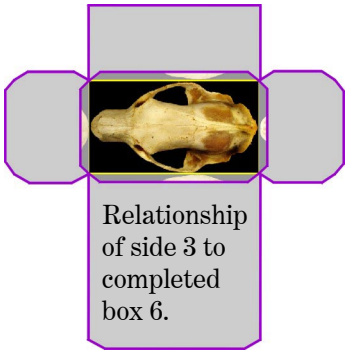
Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Lower Left Quarter of Side 3



Relationship of side 3 to completed box 6.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Lower Right Quarter of Side 3





Relationship of side 3 to completed box 6.

Caribou Mysteries

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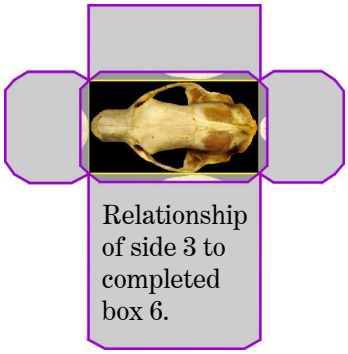
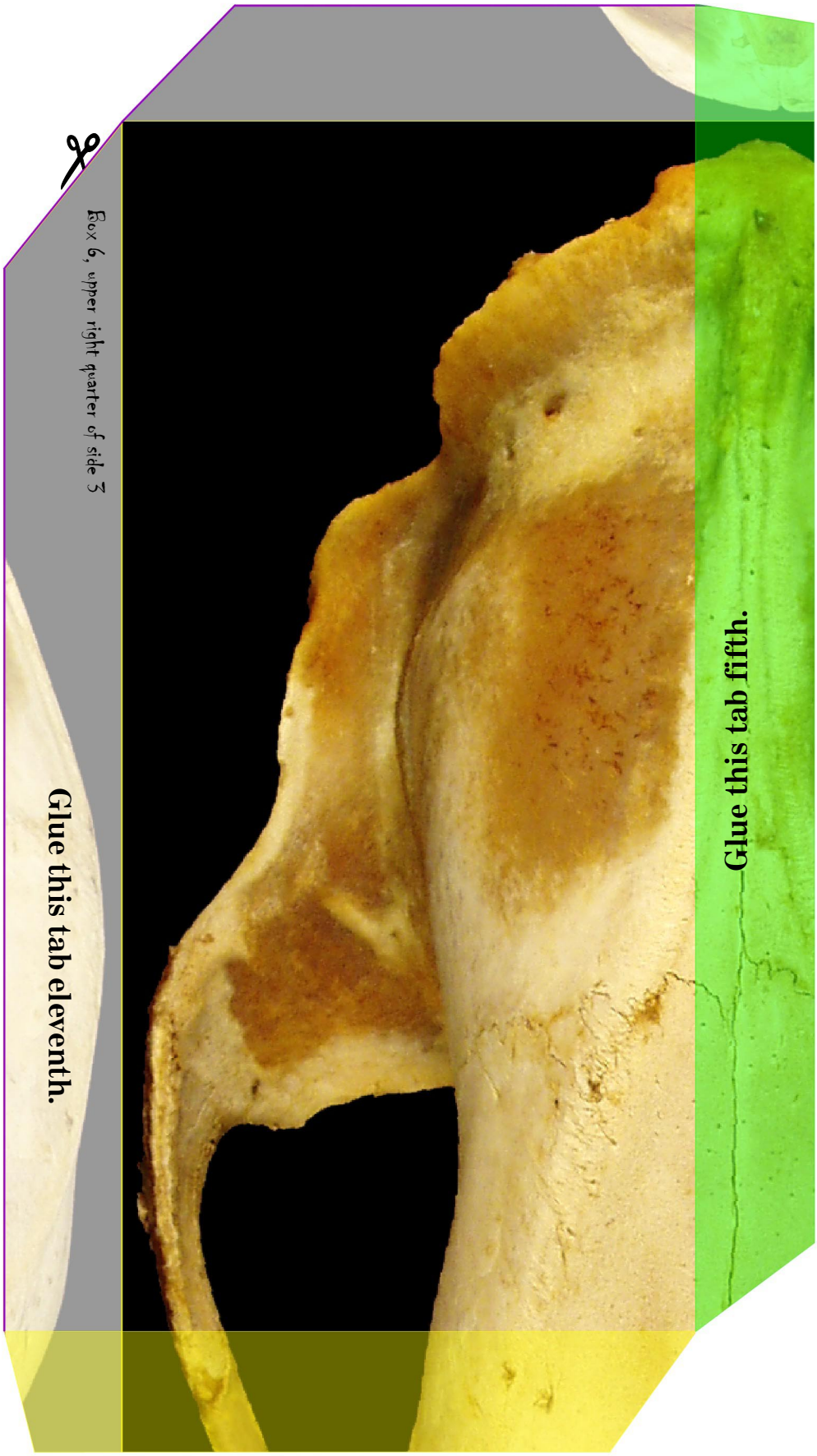
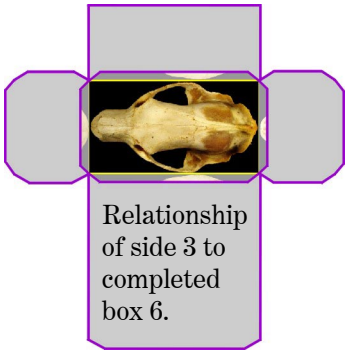
Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Upper Left Quarter of Side 3



Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Upper Right Quarter of Side 3





Relationship of side 3 to completed box 6.

Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Left Part of Side 4

Relationship of side 4 to completed box 6.

Box 6, left part of side 4

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Right Part of Side 4

Relationship of side 4 to completed box 6.

Box 6, right part of side 4

Glue this tab eighth.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Side 5

Glue this tab sixteenth.

Glue this tab eighteenth.

Box 6, side 5

Glue this tab fourteenth.

Mammals of the Arctic National Wildlife Refuge:
Skull Box 6 - Side 6

Glue this tab seventeenth.

Glue this tab nineteenth.

Box 6, side 6

Glue this tab fifteenth.

Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Boxes 7 and 9*

(See Skull Box identification sheet for skull identities.)

Instructions:

Print skull box page. (Print at or above 300 dots per inch (dpi) for sharpest results.)

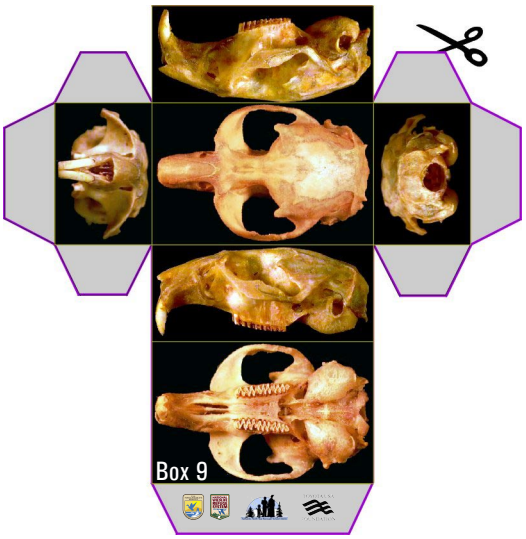
Cut on purple line around complete box and tabs.

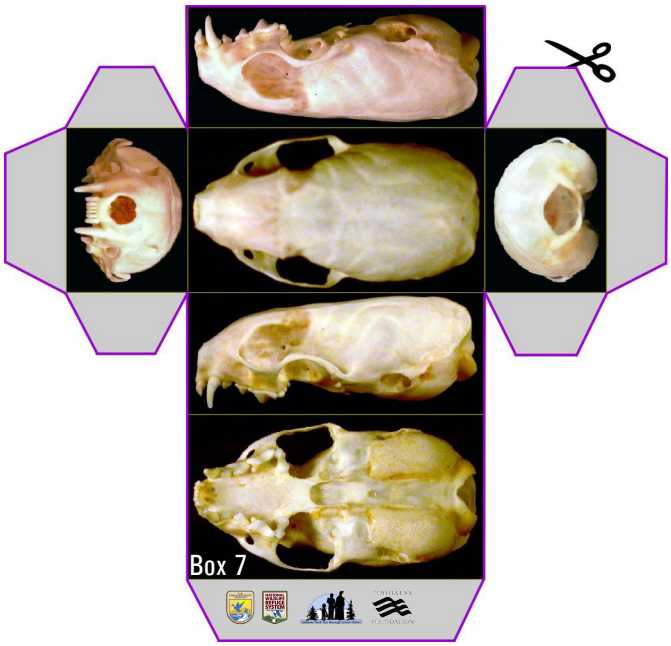
Fold along all folding lines.

Apply glue to tabs and glue box together.

(Before gluing the final side, you may wish to insert crumpled tissue so the box is more substantial.)

All skulls are full scale.





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***Indicated skulls are from the University of Alaska-Fairbanks Museum collection.**

Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Instructions

(See Skull Box identification sheet for skull identities.)

Instructions:

Print skull box pages. (Print at or above 300 dots per inch (dpi) for sharpest results.)

Working on one side of the box at a time, cut on purple line around the sections and tabs.

In the order indicated on the tabs, apply glue to the *yellow* photo-tabs, then glue each tab under the other section of that box side.

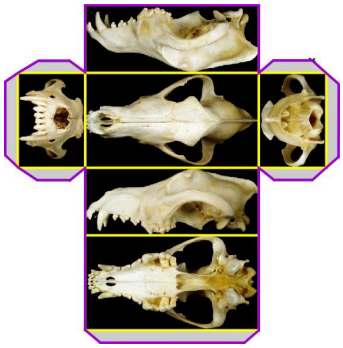
When all sides are complete, lay box sections on a flat surface to make gluing easier.

Continuing in the order indicated, apply glue to each tab, then glue that tab under the adjacent box side. (Refer to the small relationship diagrams to see how each side fits.)

When all the sections of the box are glued together, fold along all folding lines.

Apply glue to the remaining tabs, in the order indicated, to glue together the completed box.

(Before gluing the final side, you may wish to insert crumpled paper so the box is more substantial.)



Relationship of all sides for Box 8.

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Caribou Mysteries

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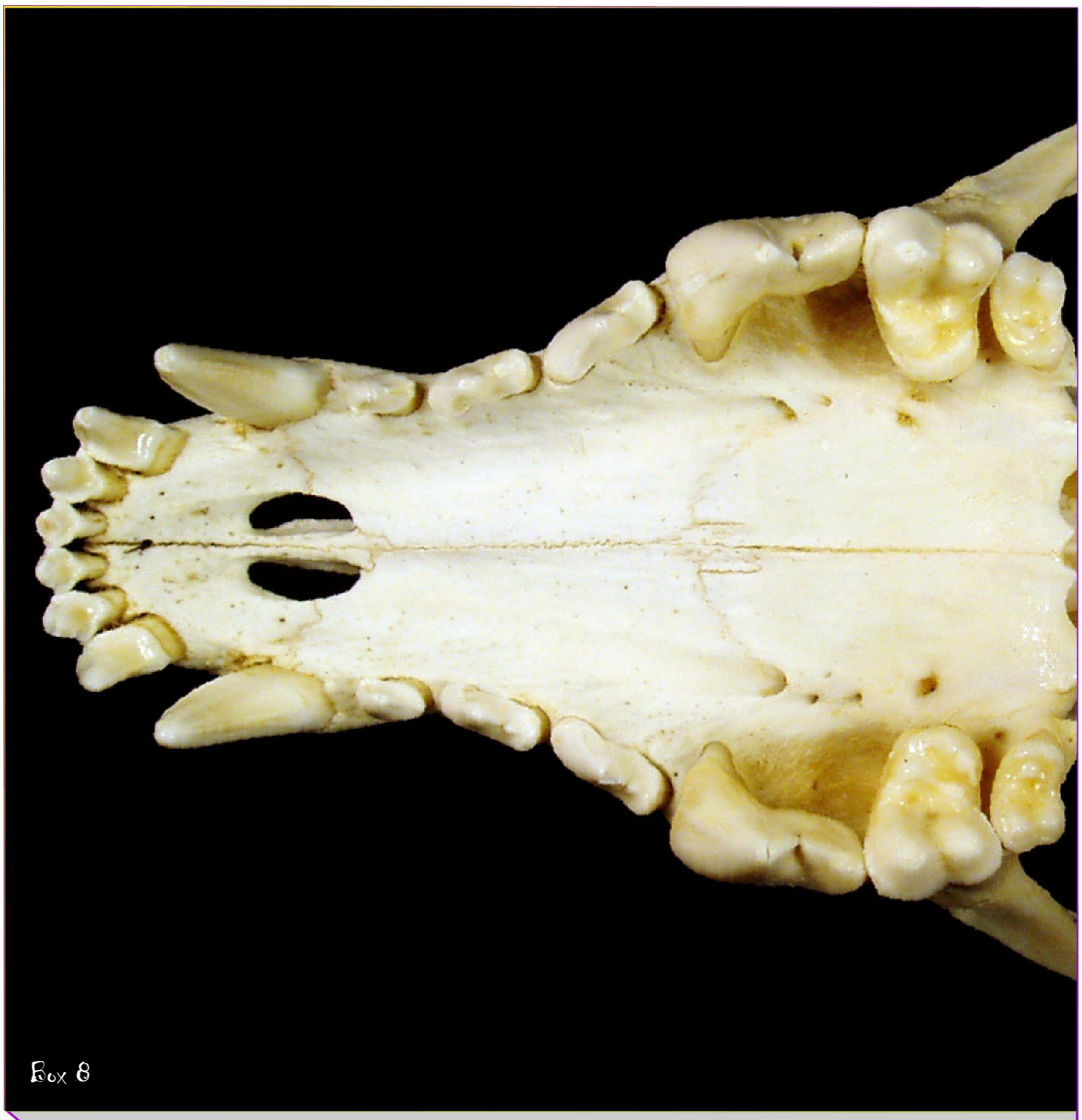
Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Left Part of Side 1

All skulls are full scale.



Box 8, left part of side 1

Relationship of side 1 to completed box 8.

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Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Right Part of Side 1

Glue this tab first.

Box 8, right part of side 1

Glue this tab last (sixteenth).

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Caribou Mysteries

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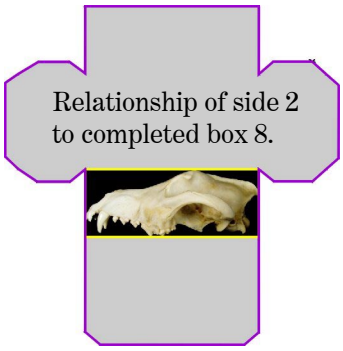
Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Left Part of Side 2



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Caribou Mysteries

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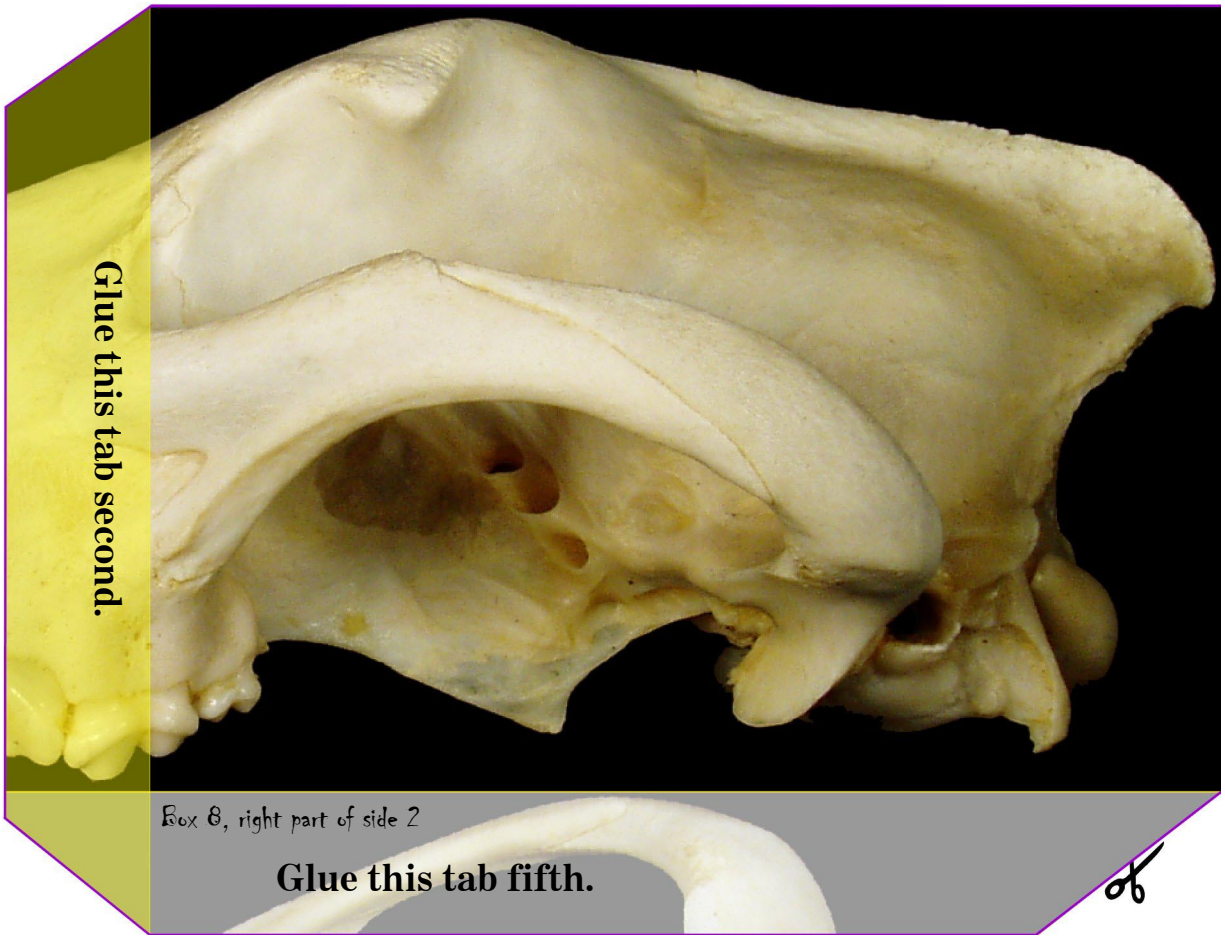
Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Right Part of Side 2



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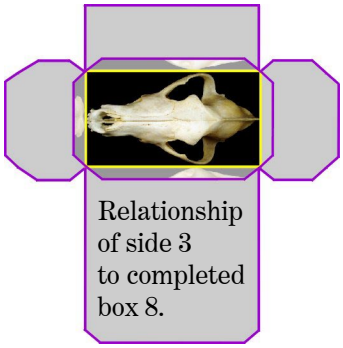
Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Left Part of Side 3



Relationship of side 3 to completed box 8.

Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Right Part of Side 3

Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Left and Right Parts of Side 4

Box 8, left part of side 4

Relationship of side 4 to completed box 8.

Box 8, right part of side 4

Caribou Mysteries

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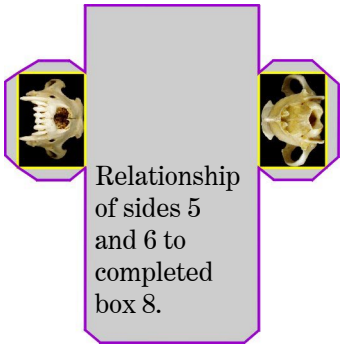
Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Side 5

Glue this tab twelfth.

Glue this tab fourteenth.

Box 8, side 5

Glue this tab tenth.



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Caribou Mysteries

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 8 - Side 6

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Caribou Mysteries

science sleuths & detective math

Mammals of the Arctic National Wildlife Refuge:
Skull Box 10 - Instructions

(See Skull Box identification sheet for skull identities.)

All skulls are full scale.

Instructions:

Print skull box pages. (Print at or above 300 dots per inch (dpi) for sharpest results.)

Cut on purple line around all box sections and tabs.

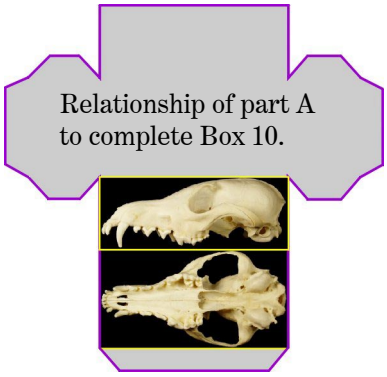
Fold along all folding lines.

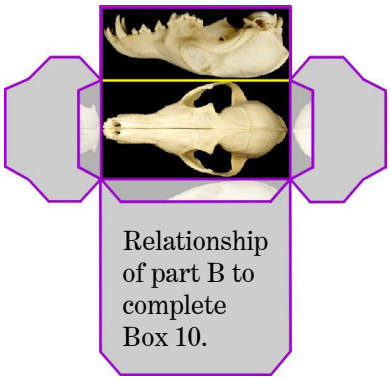
Lay box sections on a flat surface to make gluing easier.

In the order indicated on each photo-tab, apply glue to a photo-tab, then glue that tab under the matching box side. (Refer to the small relationship diagrams to see how each section fits.)

When all the sections of the box are glued together, apply glue to the gray tabs, in the order indicated, to glue together the completed box.

(Before gluing the final side, you may wish to insert crumpled paper so the box is more substantial.)





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Caribou Mysteries

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 10 - Part A

(See Skull Box identification sheet for skull identities.)

All skulls are full scale.

Box 10, Part A

Glue this tab last.

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Caribou Mysteries

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Mammals of the Arctic National Wildlife Refuge:
Skull Box 10 - Part B

Caribou Mysteries

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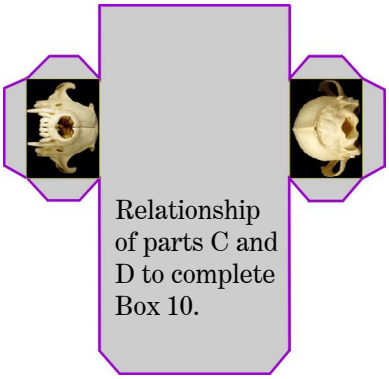
Mammals of the Arctic National Wildlife Refuge:
Skull Box 10 - Parts C and D



Relationship of parts C and D to complete Box 10.

Glue this tab sixth.

Glue this tab eighth.

Glue this tab fourth.

Box 10, Part C

Glue this tab seventh.

Glue this tab ninth.

Glue this tab fifth.

Box 10, Part D