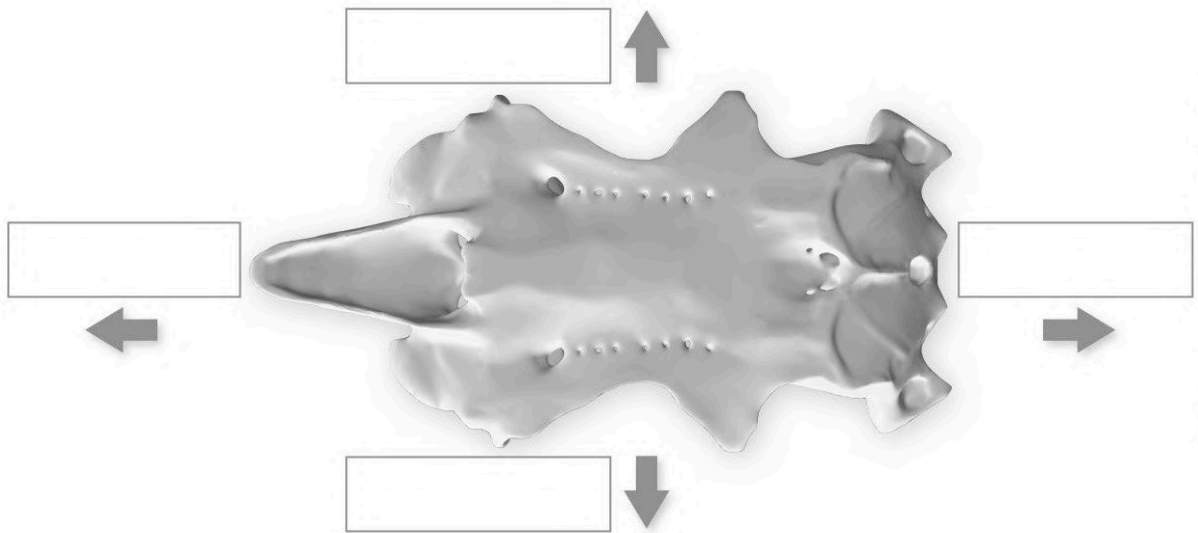
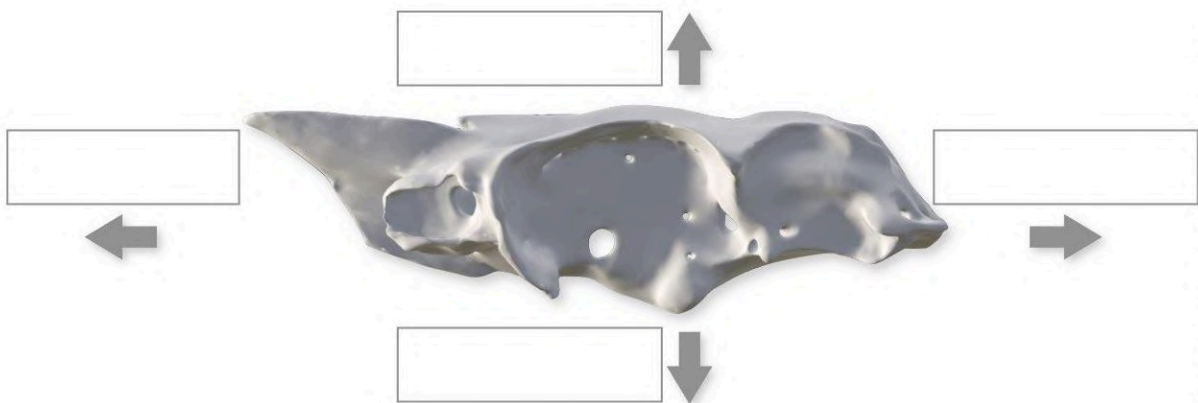


# STUDENT NOTEBOOK

## Section 1. What is the anatomical orientation of the braincase and brain?

Fill in the blanks in the image below using the following anatomical orientation terms (terms may be used more than once):

- Rostral (or Cranial)
- Caudal
- Dorsal
- Ventral
- Left
- Right



**Section 2. What do you notice about the brain relative to the endocranial cavity?**

---

---

---

---

---

---

What are one or more potential explanations?

---

---

---

---

---

---

What explanation did you find in Yopak et al. 2019? Is it contrary to or compatible with your explanation?

---

---

---

---

---

---

Does your previous explanation work for both sharks and humans? If not, can you revise your explanation so that it does?

---

---

---

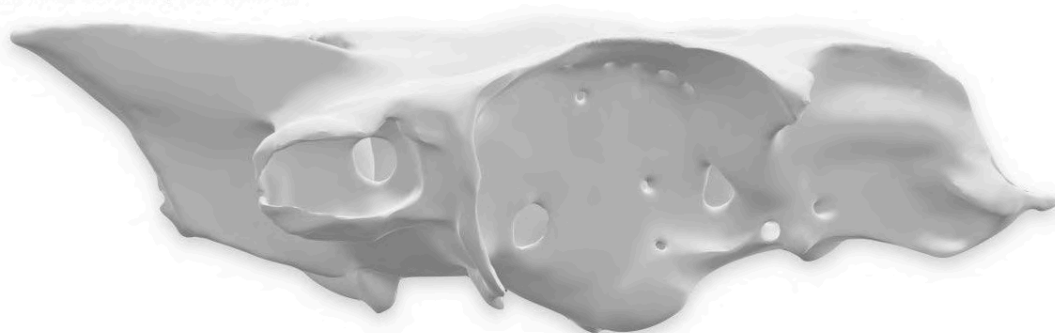
---

---

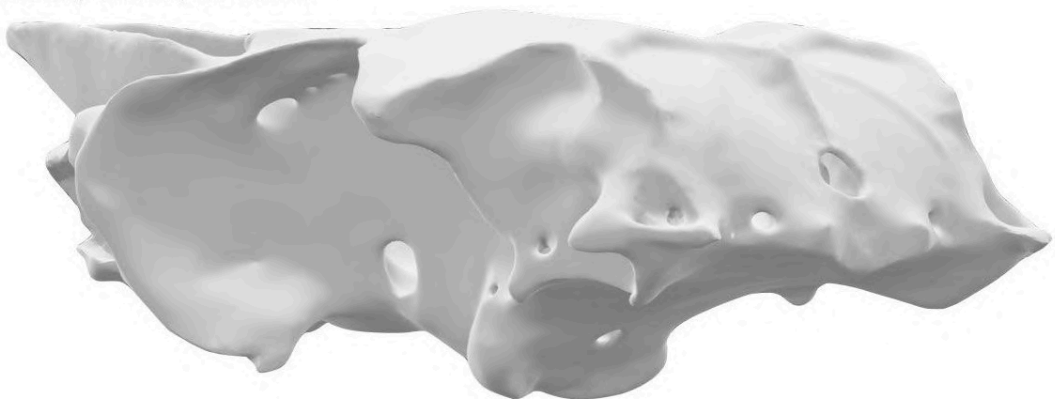
**Section 3. Which chondrocranium foramina could be for cranial nerves?**

Circle the foramina that could convey nerves directly from the brain.

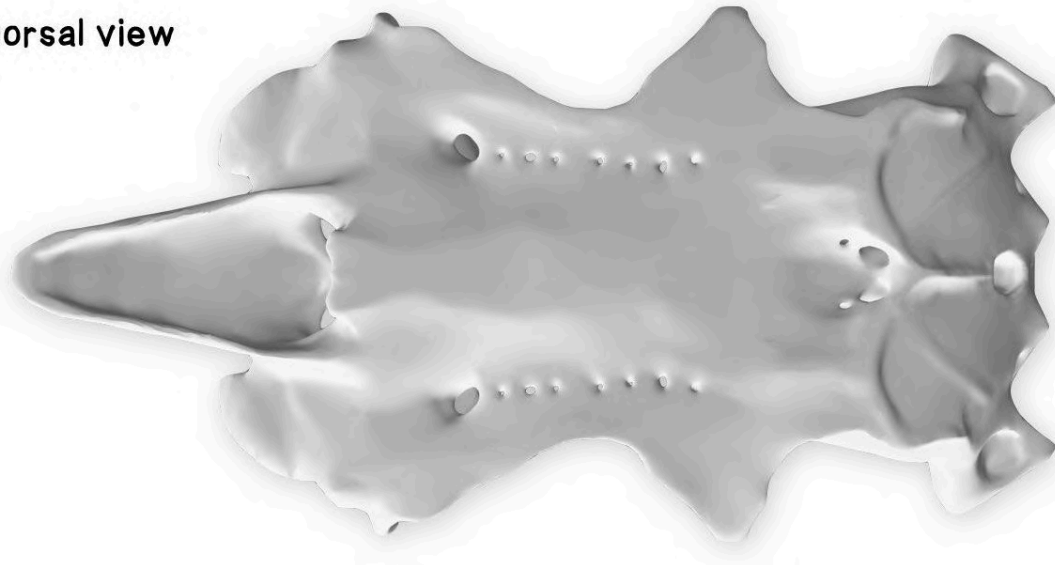
**Anterolateral view**



**Posterolateral view**



**Dorsal view**



**Section 5. What differences do you notice among the cranial nerve foramina?**

---

---

---

---

What are one or more potential explanations?

---

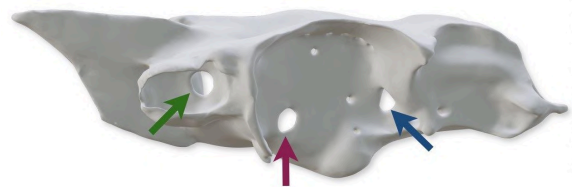
---

---

---

What information do you think is carried by the cranial nerves that pass through the three largest cranial nerve foramina of the braincase?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



Why? What do your three choices above all have in common?

---

---

---

---