



BRAIN COMPARISONS

THE READING LINK

for use with *Skullduggery* and the *Brain Comparisons Teacher's Guide*



Baylor
College of
Medicine



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BioEdSM

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Development of BrainLink® educational materials was supported, in part, by funds from the National Institutes of Health, Science Education Partnership Award grant number R25 RR09833. The opinions, findings and conclusions expressed in this publication are solely those of the authors and do not necessarily reflect the views of Baylor College of Medicine or the sponsoring agency.

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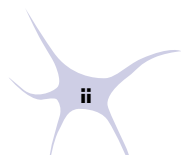
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1. Here are some words from *Skullduggery* that have more than one meaning. Look at the meanings for each word, and then decide which meaning goes with the word in each of the sentences following. Write the number of the correct meaning next to the sentence.

gear

1. clothing
2. equipment for a specific purpose
3. part of a machine that controls force and speed
4. to make ready for effective operation

- _____ The Isleys put their bikes in high **gear** and raced down the road.
- _____ The Brain wore his official biking **gear**.
- _____ All the NeuroExplorers were **geared** up for their adventure.
- _____ The NeuroExplorers stowed their hiking **gear** in their backpacks.

impression

1. a mark made on a surface by pressure
2. an effect, image or feeling that stays in the mind
3. a vague notion, memory or feeling
4. an imitation or caricature of someone in a theatrical presentation

- _____ The sight of the two Ottzingers made a vivid **impression** on my mind.
- _____ The skull made an **impression** in the sand where it had been laying.
- _____ At the next meeting, Isley II did a funny **impression** of his brother fighting off the bats.
- _____ Professor Ottzinger had the **impression** that the NeuroExplorers were both smart and adventurous.



WORD MEANINGS

(CONTINUED)



2. Here are the definitions of some words used in *Skullduggery*. Write a sentence using each word. Your sentences should tell something about the story.

- a. **prehistoric** - from the ancient time before people began to record events in writing
- b. **sinus** - a space containing air or fluid within the facial bones of the skull
- c. **cranium** - the bones of the head except for the jawbone
- d. **chasm** - a deep crack or opening in the surface of the earth
- e. **monozygotes** - identical twins derived from the same fertilized egg
- f. **symmetrical** - having an exact matching of parts on both sides of a dividing line

a. _____

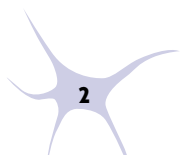
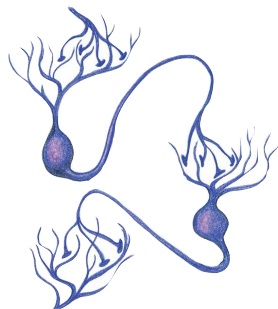
b. _____

c. _____

d. _____

e. _____

f. _____



WORD MEANINGS

(CONTINUED)



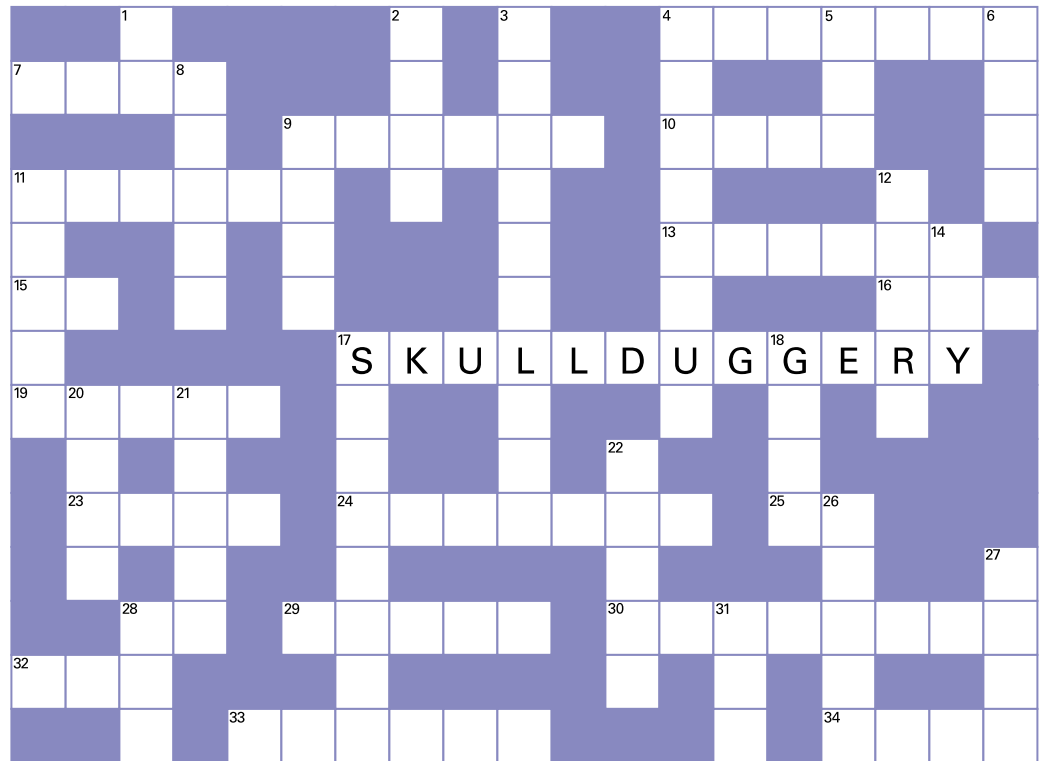
3. Complete the *Skullduggery* crossword puzzle below.

ACROSS

4. Skeleton of the head except for the jawbone
7. Animals that attacked the Isleys in the cave
9. Very large cave
10. Part of a plant that is underground
11. Irregular line where two bones of the skull meet
13. Our skulls protect our _____.
15. A negative reply
16. An opening; blank space
17. Trickery; underhanded behavior
19. The professor chose the NeuroExplorers to help him because of their intelligence and _____.
23. They knew the frightening folk-_____ about the Caves at Calicoon.
24. They agreed to meet in the _____sinus part of the Caves.
25. Professor Ottzinger said to his brother, "Give _____ back, now!"
28. A pronoun I use to refer to myself
29. The skull is made up of 22 different _____.
30. Name of a female NeuroExplorer
32. Do you think that the Mishigara Man might have lived in the Cenozoic _____?
33. The skull had been _____ in the cave.
34. Peter Ottzinger wanted to _____ the skull to the highest bidder.

DOWN

1. The NeuroExplorers Club met _____ Kyle's house.
2. A hollow area in the Earth, with an opening to the outside
3. Part of the brain that helps muscles move together smoothly
4. Part of the brain where thinking and decision-making take place



5. A word used to make things negative
6. Identical twins are _____-zygotes.
8. The bones of the head
9. A neuron is a nerve _____.
11. A space within the bones of the skull
12. Professor Ottzinger was _____ about his brother's behavior.
14. To express in words
17. The sinuses in the middle of the face; "Snakes in the _____"
18. Folds on the surface of the cerebrum
20. The NeuroExplorer who wears glasses
21. Intelligence is related to how _____ the brain is, compared to body size.
22. The professor told his brother about a school _____ trip to the Caves.
26. There are two sets of _____ in Skullduggery.
27. Professor Ottzinger's first name
28. The Brain's translator
31. They found the skull of a small goat. A baby goat is called a _____.



DETAILS AND SUPPORTING IDEAS



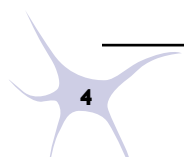
1. At the beginning of the book, *Skullduggery*, (pages iii–iv) there is a section describing each member of the NeuroExplorers Club. Choose three of your own friends or classmates, and write a similar paragraph to describe each of them. Tell about their families, things they like to do, ideas they have, or whatever details you think describe them best.



a. _____

b. _____

c. _____



DETAILS AND SUPPORTING IDEAS



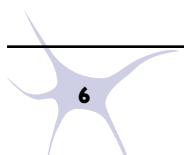
2. Look at the picture on page 11 of *Skullduggery*. In your own words, describe this scene as the NeuroExplorers entered the Caves at Calicoon. 1) Tell where and when it took place. 2) Describe as many details as you can. 3) Describe how the characters were feeling at that moment, and why.

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- The brain is the command center of the body.
- The brain is made up of billions of cells.
- The brain controls movements and processes information from the senses.
- The brain is the most complex organ in the body.

Read the chapter called “Ottzinger’s Plan” on pages 5 and 6. In your own words, write a short summary (50 words or less) of that chapter.

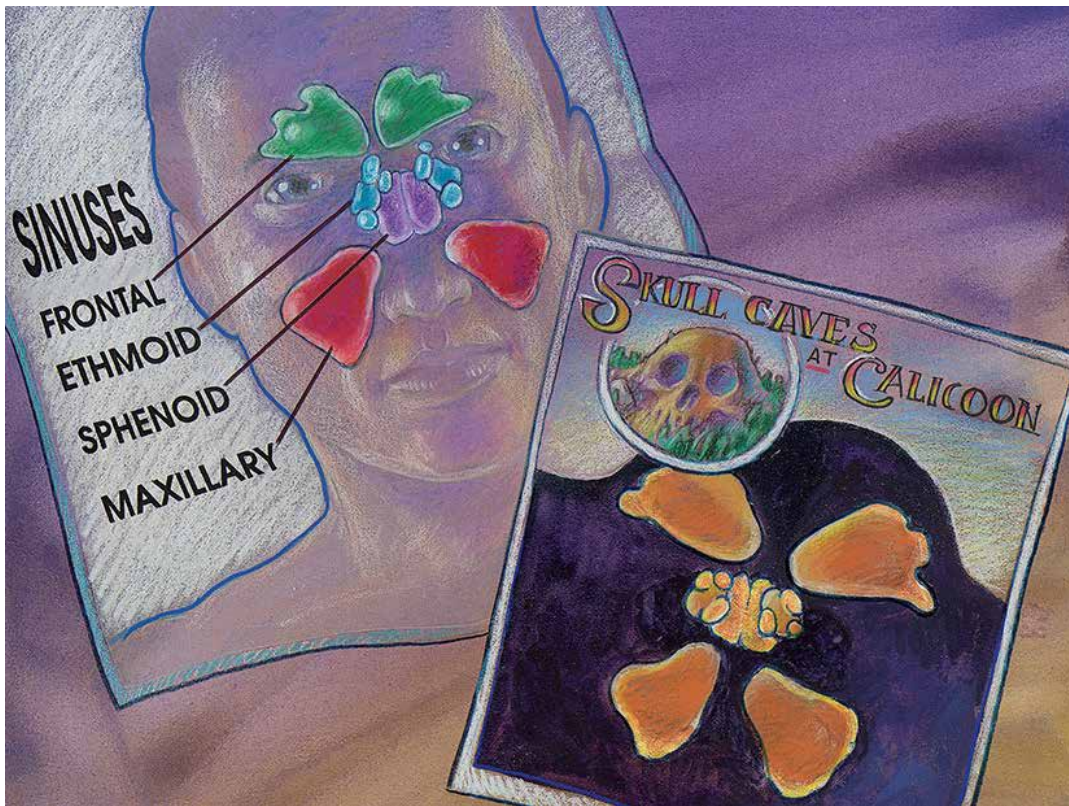
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SEQUENCE OF EVENTS



1. Read the chapter called “Snakes in the Sphenoid” on pages 16–19. Find the event listed below that happened **first** in that chapter. Mark **1** next to it. Then number the order (2–5) in which the other events happened.

- _____ B.J. fell into the water.
- _____ Lakeisha was upset about seeing snakes in the water.
- _____ A snake sliced through the gravel toward them.
- _____ They spotted a skull in the wall.
- _____ They decided the skull was not from a human.



2. After you have read the whole story, number the order in which the following events took place.

- _____ The NeuroExplorers studied the layout of the sinuses in the skull.
- _____ Professor Ottzinger came to Kyle’s house with a plan that involved the NeuroExplorers.
- _____ A false wall was discovered in the Caves at Calicoon.
- _____ One Ottzinger was trapped by another.
- _____ The skull of the Mishigara Man disappeared from a lab at the university.



CAUSE AND EFFECT



1. How did Lakeisha's fear of snakes affect her when she entered the dark, scary cave?

2. Why did the NeuroExplorers attack The Brain at the very end of the story? Write a paragraph to explain the cause of their reaction to his new plan.

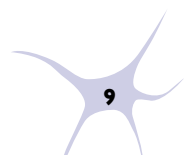
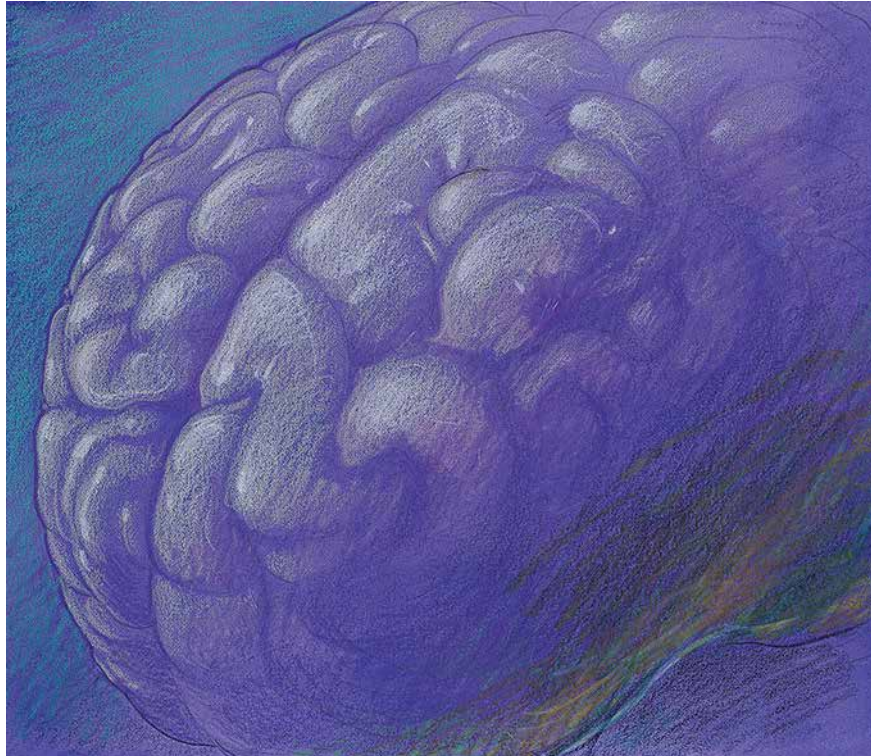


FACT OR OPINION



Facts are true. Opinions sometimes are stated as facts, but they might not be true. Decide whether each of these statements related to the story is a fact or an opinion. Write **F** or **O** in each space.

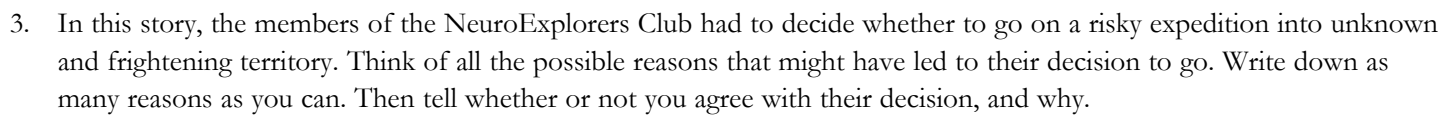
- _____ Mountain lions and snakes guarded the entrance to the Caves at Calicoon. (page 5)
- _____ The NeuroExplorers knew a lot about the brain and the skull. (page 6)
- _____ The Caves at Calicoon were laid out like the sinuses in a cranium. (page 10)
- _____ A million billion bats attacked the Isley twins. (page 15)
- _____ B.J. and Lakeisha fell into water that was full of snakes. (pages 16–19)
- _____ We know that humans are the most intelligent animal because humans' skulls and brains are larger than other animals'. (page 24)
- _____ "It is more likely that the skull is the Mishigara Man than that you are Professor Ottzinger!" (page 27)



GENERALIZATIONS/DRAWING CONCLUSIONS

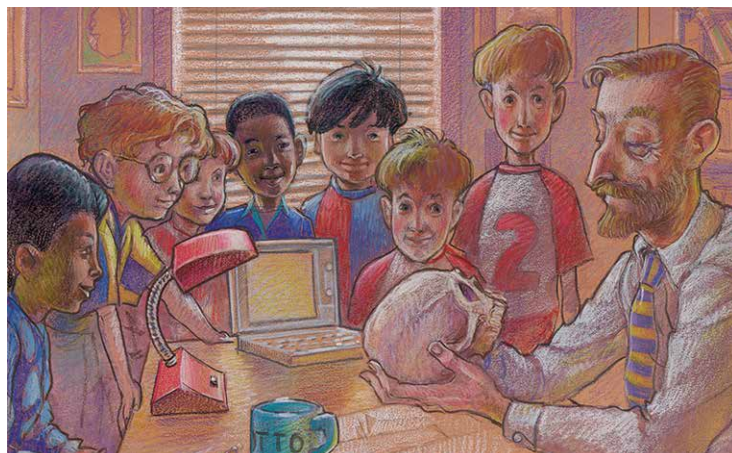


1. Which of the following generalizations or conclusions can be made from the information given in the story, *Skullduggery*? Fill in the circle next to each statement that you think is correct.
 - ☐ The remains of prehistoric men are very valuable.
 - ☐ The bones of mammals disintegrate in the earth after a period of about 100 years.
 - ☐ The larger the skull, the more intelligent the animal.
 - ☐ Professor Ottzinger knew all along that his brother had the missing skull.
 - ☐ The NeuroExplorers knew all along that Professor Ottzinger was a twin.
 - ☐ The professor and his twin brother are so identical that they think alike.
 - ☐ The professor purposely fooled both his brother and the NeuroExplorers in order to achieve his purpose.
2. How do you think Professor Ottzinger felt about his twin brother, Peter? Did he understand Peter's actions? Did he love his brother? Did he hate him? Tell what you think, and explain why.

[illegible]



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PAINTING PICTURES WITH WORDS



Sometimes words are used in an unusual way to “paint” a picture for us. For example, someone might say, “The little girl’s cheeks were like roses.” Her cheeks were not really like roses, but we get the picture that she had full, pink cheeks.

Look at these word picture sentences from *Skullduggery*. Then see if you can write one of your own. You might describe the darkness or some other feature of the caves, or the action or feelings of a character, or whatever you like.



Sentences from *Skullduggery*

The coolness of the rock walls *wrapped around the NeuroExplorers like a wet blanket*. (page 10)

Their flashlights *poked holes through the inky blackness*. (page 10)

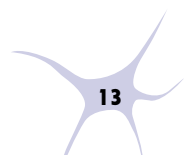
In another second the cave was again *alive in a blizzard of bats*. (page 15)

Suddenly, *like a big black bird of prey raising its wings*, he leaped up, threatening the intruders who unexpectedly came upon him. (page 26)

My Word Picture Sentence

My Picture

Now draw the picture you have just painted with words.



CROSSWORD ANSWER KEY



		1	A					2	C		3	C			4	C	R	A	N	I	U	M	6	
7	B	A	T	S					A		E				E			O					O	
				K		9	C	A	V	E	R	N			10	R	O	O	T				N	
11	S	U	T	U	R	E			E		E				E					12	A		O	
	I			L		L					B				13	B	R	A	I	N	S	14		
15	N	O		L		L					E				R					16	G	A	P	
U								17	S	K	U	L	L	D	U	G	G	E	R	Y				
19	S	20	K	I	L	L			P			L			M		Y		Y					
		Y		A					H			U		22	F			R						
		23	L	O	R	E			24	E	T	H	M	O	I	D		25	I	26				
		E		G					N						E					W			27	P
		28	M	E			29	B	O	N	E	S			30	L	A	K	E	I	S	H	A	
32	E	R	A						I						D		I		N				U	
		X				33	H	I	D	D	E	N				D			34	S	E	L	L	

