

**TNReady
English III
Part I - Informational**

**2016
Dreams**

Anchor Set

Anchor A-1

WRITING TASK 1

Brain activity is a really complicated subject. Scientists have been studying people and animals to gain knowledge of our brains. They use machines to record what people dream about then puts them into images. The reason scientists are so interested in this is because when you sleep your brain dreams about what you did last and it helps you remember stuff.

Anchor Paper 1

Score Points

D: 1

This response utilizes no evidence from the text and demonstrates little understanding of the stimuli (*They use machines to record what people dream about then puts them into images*).

F/O: 1

This response contains a very limited introduction (*Brain activity is a really complicated subject*) and no conclusion. There is no real discernable organizational structure.

L: 1

The response contains little precise language (*It helps you remember stuff*) and does not establish or maintain a formal style.

C: 1

The response contains multiple errors in punctuation and capitalization, showing limited command of the conventions of English.

Anchor A-2

WRITING TASK 1

After reading 3 passages about brain activity while dreaming, I have some information to share with every one. Here are the names and the information I got from reading them split apart so it is easier to read and understand

Passage 1 (one)

Dreaming Makes Perfect

by Stephen Ornes

In this passage I have found out that scientists found a connection between nap-time dreams and better memory in people who were learning a new skill. "I was startled by this finding," said Robert Stickgold who is a cognitive neuroscientist at Harvard Medical School and I bring him up because he worked on the study. Neuroscience is the study of how the brain and nervous system work, and cognitive are studies that look at how people learn and reason.

A study was done with all the information from the experiment some scientists got some volunteers it was 99 college students and they all got one hour to get through a virtual maze (which means on a computer) that was set up to be hard and to make it a little harder every time they would restart they would end up in a new spot a they had to

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WRITING TASK 1

find a particular picture of a tree and remember where it was then they all got a five hour break. witch they let half sleep and the other half stay awake and when the ones that got to sleep got up they all said these dreams had some thing to do with the maze and after the break was over they all had to do it again and the ones that had the dreams about the maze found the picture faster.

Anchor Paper 2

Score Points

D: 1

This response only addressed one of the three passages, which demonstrated little understanding of the prompt and inadequately develops the topic.

F/O: 1

This response has no conclusion and an introduction that is inappropriate to the task (*I have some information to share with every one*). The response also does not clarify relationship between the passages as it only addresses one of them.

L: 1

The response does not establish a formal style (*and I bring him up because he worked on the study*). The response illustrates little precise language or literary technique.

C: 1

The multiple punctuation and spelling errors (*witch instead of which, etc.*) in this response demonstrates limited command of conventions.

Anchor A-3

WRITING TASK 1

In the passages doctors explained the thoughts you have while sleeping. Several doctors explained the different kind of dreams you can relate to while your sleeping. One of the experiments the doctor decided to do was making an activity of a lucid dreams come true. Lucid dreaming is when your muscles don't move, your eyes twitches like they usually do, and sleeps very deeply. Lucid dreaming is a different experience than just taking a normal nap, or even sleeping at night. In lucid dreaming you can decide what you want your dream to be. It can be as simple as moving one of your body parts to swimming in the ocean. It creates an image in your head, and it makes you remember it better than if you took a nap and tried to remember the dream. Scientists took different actions to see what people did in their dreams. For instance, Czisch decided to use an fMRI scanner, a fMRI scanner tracks the flow of blood throughout a person's brain. The fMRI scanner shows the different regions when the blood flow is active. When having a lucid dream your supposed to think of crazy things like going on a crazy adventure, but when the scientist experimented the person thought about squeezing first their left hand, then their right hand. On the scanner they realized when he squeezed his left hand the right side of the brain was active. It was found that dreams are similar from being awake, or if you were asleep.

Anchor Paper 3**Score Points****D: 1**

This response uses mostly irrelevant evidence from the stimuli when developing the topic, or does not explain the evidence used in conjunction to the topic (*a fmri scanner tracks the flow of blood throughout a person's brain*).

F/O: 1

This response has a single sentence introduction which is mostly irrelevant to the task (In the passage doctors explained the thoughts you have while sleeping), and contains no conclusion. The response also has an unclear organizational structure that makes it difficult to follow.

L: 2

This response shows inconsistent command of syntactic variety (*Lucid dreaming is a different experience then just taking a normal nap, or even sleeping at night*). It is also inconsistent in maintaining a formal tone.

C: 2

This response shows an inconsistent command of grade level conventions due to the errors significantly interfering with meaning.

Anchor A-4

WRITING TASK 1

Has anyone ever told you to "sleep-on it"?

A neuroscientist discovered that practicing something over and over again and then taking a nap may even help you. Robert Stickgold, a neuroscientist from Harvard conducted an experiment on 99 college students. The experiment consisted of them trying to solve a difficult maze, with each mistake they were forced to start over in a different location; while the participants were suppose to find and remember where a particular picture of a tree was. After the test half took a nap and when asked about their dreams, 4 out of the 50 actually had dreams connected to the maze. Stickgold suggests "the dream doesn't help a person learn its: the other way around."

On the other hand, in Germany researchers came up with a way to "take pictures" of one's dreams. A group of 6 lucid dreamers were told to dream about squeezing their right then left hand only one actually did. When he was dream squeezing his hands the part of the brain that controls movement called the sensorimotor cortex became active as they seen on the fMRI scans.

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Anchor Paper 4
Score Points

D: 2

This response uses relevant but insufficient evidence from 2 of the 3 responses to partially develop the topic (*4 out of the 50 actually had dreams connected to the maze*). This demonstrates only a partial understanding of the topic.

F/O: 2

This response contains a one sentence, limited introduction and does not have a conclusion. The response shows organization by writing about 2 of the 3 passages in a separate paragraph each, but does not show much of a relationship between them.

L: 2

This response establishes but is inconsistent in its formal style (*On the other hand*). It also illustrates inconsistent command of precise language.

C: 2

This response shows an inconsistent command of the conventions of English (*A group of 6 lucid dreamers where told to dream about squeezing their right then left hand only one actually did*).

Anchor A-5

WRITING TASK 1

So I believe it is possible to study dreams for science but only to an extent like we go back in the prompt to understand what people are doing while they are dreaming means you most likely have to study what they say about their dreams after they wake up from sleeping.

The research and testing in this article seems fairly reasonable to believe based on some of the people Stephen does interviewed for this passage. Going back to the part where they had 3 male volunteers go to sleep and then when asked to explain their dreams it seems like that would be a complete path to have to go through. I mean if I was awakened more than 3 times for something like this I wouldn't be able to go back to sleep.

Starting on page 3, passage 2, line 10 where they say "The ability to have a picture of a dream sounds like something that's possible only in a dream, but a team of researchers in Germany has done just that" to be honest who wouldn't find that at least a little bit exciting that they can measure your brain waves during your sleep then produce an image that you saw in your dream, to me that is truly fascinating and I think it is quite amazing that you can do just about anything when you put your mind to it.

Now starting on page 4, passage 3, line 19. This is one of those paragraphs that explains in a way how awesome the brain can be, when you think about it I bet you've never really given any thought on how much the brain is capable of it is capable of so much more than controlling your body it allows us to feel, learn, it can even produce images in dreams a we still aren't sure how it is possible for that to happen! so it is truly amazing when you just stop to think about it.

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WRITING TASK 1

information gathered is fascinating

Anchor Paper 5 Score Points

D: 2

This response uses mostly relevant but insufficient evidence from the prompt (“*The ability to take a picture of a dream sounds like something That’s possible only in a dream*”) with demonstrates only a partial understanding of the topic.

F/O: 2

This response has a limited introduction and conclusion, and has attempted to create organization by using paragraphs but the lapses in focus (*to be honest who wouldn’t find That at least a little bit exciting*) make it hard to follow any ideas presented.

L: 2

This response repeats lots of basic transitional phrases (*Starting on page 3, Now starting on page 4, etc.*) and illustrates inconsistent command of syntactic variety.

C: 2

This response demonstrates inconsistent command of grade level conventions through the errors in spelling and capitalization.

WRITING TASK 1

Scientists have been studying the human brain activity while sleeping for quite some time. In Passage 1, 'Dreaming Makes Perfect', Stephen Ornes writes that in recent study, scientists have learned of a connection with naptime, dreams and memory of a newly learned skill. Volunteers were taken and shown a virtual maze then asked to nap afterwards. Out of the 50 people who napped, four revealed that their dreams were connected to the maze in some way. In 'What a Dream Looks Like', Ornes explains that they also performed this study on lucid dreamers. Lucid dreamers are able to control what they dream and have much stronger dreams than the ordinary person. The dreamers were asked to dream about squeezing their hand. Only one dreamer successfully performed this task. In the final passage, titled 'The Stuff of Dreams', Ornes describes how the program compared brain activity of people who were both asleep and awake. "The program found that the brain activity was similar when both asleep and awake." Throughout the passages you see that new learning affects most dreams.

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WRITING TASK 1

Since the study found that the brain works in similar ways during dreaming and awokeness, the new things you pick up on that day should have a high chance of following you to your dream state.

Anchor Paper 6
Score Points

D: 2

This response only partially developed the topic by using mostly relevant but insufficient evidence (*The dreamers were asked to dream about squeezing their hand. Only one dreamer successfully performed the task*).

F/O: 2

This response talks about each of the passages separately in an attempt to give organization to the writing. Without any paragraph breaks, this makes the ideas present are to follow.

L: 2

This response utilizes basic and repetitive transitions (*In Passage 1, In the final passage*). The repetitive nature of the response also demonstrates inconsistent command of syntactic variety.

C: 3

This response demonstrates consistent command of the conventions of English, as the minor errors do not significantly interfere with understanding.

WRITING TASK 1

In the passage, *Dreaming Makes Perfect*, Stephen Ornes talks about a scientific study on dreams. Robert Stickgold, a cognitive neuroscientist at Harvard Medical School who worked on this experiment, was shocked by the fact that if someone dreams about a new task their skill improves. The study had 99 college students between ages 18 and 30 spend an hour trying to complete a virtual maze on a computer. They took a 5 hour break and half of the students stayed awake and the rest were told to take a nap. Stickgold found that "NREM" or non-REM is connected to the learning ability of rats and people. REM means rapid eye movement. 4 of 50 people dreamed about the maze. When they tried the maze again they completed it faster.

In Germany they can now take pictures of dreams. They did a brain scan on a lucid dreamer to help researchers know how the brain combines thoughts and memories to make up dreams. A lucid dream is one where the dreamer knows he or she is dreaming and has complete control. The researchers asked 6 lucid dreamers to dream about squeezing their hands.

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WRITING TASK 1

Only 1 lucid dreamer was successful. During this dreamer's dream, his sensorimotor cortex became active.

Frank Tong, a neuroscientist from Vanderbilt University, wanted to know how we see the images we do in dreams. Tong used computer program and discovered that brain activity, awake and asleep, are very similar.

In a different study, neuroscientist Kojiyasu Kamitani found that a computer program can pick between two objects which was what someone dreamed about. During the study, three males were told to sleep in a machine called fMRI. Shortly after falling asleep they were woken up and asked to describe what they saw.

If new discoveries are made, science may be able to evolve, improve, or control what dreams we have. If so it will still be far in the future before these discoveries are made. What if before we went to sleep we could hook ourselves up to a computer and pick what we wanted to dream about that night? Dreams and goals could be lived, or dreamed, rather, until we wake up.

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Anchor Paper 7

Score Points

D: 2

This response uses much paraphrased material from the passages (*Frank Tong, a neuroscientist from Vanderbilt University, wanted to know how we see the images we do in dreams*), but the response does not offer any explanation of the evidence provided, showing only partial understanding.

F/O: 2

This response does not contain an introduction, but does have a conclusion (*If new discoveries are made, science may be able to evolve, improve, or control what dreams we have*), however, this is limited as it does not truly address the material presented.

L: 3

This response establishes a formal style and maintains that style over the course of the response. The response also contains syntactic variety (*During this dreamer's dream, his sensorimotor cortex became active*).

C: 3

This response contains some minor errors, but still demonstrates a consistent command of the convention of English.

WRITING TASK 1

Have you ever wondered what your brain does during a dream? Many researchers and scientists took on this challenge to uncover the secrets behind the nightly occurrence, dreams. Robert Stickgold is a cognitive neuroscientist at Harvard Medical School. Stickgold and his colleagues wanted to find a connection between nap-time dreams and better memory. Michael Czi'sch at Max Planck Institute of Psychiatry in Munich wanted to truly see what the brain looks like, and how it reacts during dreams. Frank Tong is a neuroscientist at Vanderbilt University in Nashville. Frank and his team wanted to compare brain activity during dreaming and the brain activity during wakefulness.

Robert Stickgold's plan was to find a connection between nap-time dreams and better memory. To do this, he gathered 99 college students from ages 18 to 30. They each spent one hour on the computer, trying to solve a virtual maze. After trying for an hour, a five-hour break began. Half were told to stay awake while the others were told to sleep. Four of the fifty sleeping participants said they dreamed of the maze, and these participants were able to solve the maze faster than before their naps. Stickgold concluded that the dream itself doesn't help a person learn, the dream was caused by the brain processes associated with learning.

Michael Czi'sch wanted to be able to take a

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WRITING TASK 1

picture of a dream. To accomplish this, he needed a group of lucid dreamers. The participants were told to go to sleep, and dream about squeezing first their left hand, then their right. Only one out of six dreamers could accomplish this. When the dreamer clinched his right hand the left side of his brain lit up, and vice versa for the right hand. Czeisler concluded that similar parts of the brain showed activity whether it was real or dreamt.

Frank Tong wanted to determine the difference between dreaming brain activity and that of wakefulness. To do this, Tong got volunteers to fall asleep, then shortly after the scientists would wake them and ask of their dream. This process was repeated, and the results were recorded. Yukiyasu Kamitani is a neuroscientist, and he says the study suggests that the brain experiences real and dreamed images in similar ways.

These studies and experiments have gave people an inside look on how the brain reacts during dreams, and how it looks during dreams. This proves scientific advancements, and other technological advancements are providing great routes of learning for any curiosities. You now know how the brain works, what it looks like, and how it can help you during dreams.

Anchor Paper 8**Score Points****D: 3**

This response adequately explained and elaborated on the evidence provided (*the study suggests that the brain experiences real and dreamed images in similar ways*). This shows a sufficient understanding of the topic and stimuli.

F/O: 3

This response has a relevant introduction and conclusion. The organization the response creates a mostly unified whole as well.

L: 3

The response establishes and maintains a formal style and objective tone (*Robert Stickgold's plan was to find a connection between nap-time dreams and better memory*). The response also shows consistent command of precise language.

C: 3

There are a few errors punctuation-wise in the response, but over all this response shows a consistent command of the convention of English.

Anchor A-9

WRITING TASK 1

"So perhaps one way to learn something new is to practice, practice, practice - and then sleep on it." (Ornes, "Dreaming Makes Perfect"). Scientists have found the connection between memories in people's lives and dreams. Stephen Ornes uses different testing and experiments to see what people are seeing in their sleep.

"Four of the 50 people who slept said their dreams were connected to the maze." (Ornes, "Dreaming Makes Perfect"). This study has come across as difficult to dreamers. A computer is faced in front of volunteers for hours as they try to get through a virtual maze. The volunteers took their first 90 minute break, scientist told half of the people to sleep and the other half to stay awake. "Some dreamed about the music that had been playing when they were working; others said they dreamed about seeing people in the maze." (Ornes, "Dreaming Makes Perfect"). Robert Stickgold, a neuroscientist at Harvard Medical School, worked on this study. Stickgold finds that dreaming itself doesn't help a person learn; says dreaming is caused by the brain processes with learning.

A study called fMRI is used during this study. fMRI is a scanner that tracks the flow of -

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WRITING TASK 1

blood through the brain to find active regions. "The dreamer in this experiment knew he was dreaming; he was capable of an activity called lucid dreaming." (Ornes, "What a Dream Looks Like"). Lucid dreaming is where a person's muscle does not move while sleeping; a lucid dreamer can create an imagined world stronger than reality. Michael Czisch, who takes pictures of the brain, works on this study. Czisch uses the fMRI on six recruited lucid dreamers to see their brain activity. "They weren't supposed to dream wildly about things like going to the moon or being chased by giant jellyfish. Instead, the participants dreamt about squeezing first their left hand then their right." (Ornes, "What a Dream Looks Like"). Studies show that one of the recruits dreamed about squeezing his dream hands. Scientists saw the left side of the controls muscles on the right side of the body. Czisch pointed out that a dream of randomness is much more complex than the study of movement.

In fact, computers can not dream, yet they help scientist understand how people dream. Frank Tong, a neuroscientist, shows brain activity and wakefulness is similar through his experiment. "It identified that seeing a certain object produced a particular pattern of brain activity. And it found that pattern was similar for an object whether -

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WRITING TASK 1

it was seen in waking life or dreamy slumber." (Ornes, "The Stuff of Dreams"). People in a coma is one example of a brain state that comparing sleeping and waking brain activity could help make more of an understanding. Scientist use mice to see how memories are formed. Although, mice help the aspects of dreaming, they cannot describe their dreams. "The dream-filled part of adult sleep takes 90 minutes to kick in." (Ornes, "The Stuff of Dreams"). The fMRI machine is noisy; it may prevent participants from falling asleep. Yukiyasu Kamitani, a neuroscientist, found a new way to study dreams. Kamitani cuts out the wait by recording the brain activity of people in the early stages of sleep. The program correctly picks two objects that appeared in a dream. Studies suggests that brain experiences real and dreamed images in similar ways.

Stickgold, Pzisch, Tong, and Kamitani study the new ways to make understanding of dreaming. Through experiments and scans dreaming over the years is being understood. fMRI scans are used all through-out this process, along with computers. With scientists all over the world dreaming will one day be understood.

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Anchor Paper 9

Score Points

D: 3

This response adequately developed the topic with relevant and sufficient evidence (*says dreaming is caused by the brain processes with learning*).

F/O: 3

This response contains a relevant introduction and conclusion. The response also clarifies relationships among ideas and concepts, though there are some gaps in cohesion (*Stickgold, Czigic, Tong and Kamitani study the new ways to make understanding of dreaming*).

L: 3

This response establishes and maintains a formal style. The response also utilizes syntactic variety as well.

C: 3

This response demonstrates consistent command of grade-level conventions of standard English.

There are a few errors (*new ways to make understanding*), but they do not significantly interfere with understanding.

Anchor A-10

WRITING TASK 1

Scientists have always been fascinated by the human brain. The brain has been studied over and over again, learning more and more each time. A recent subject of popularity is the brain's activity while sleeping. Scientists have long tried to figure out what the brain does during dreams and sleep. Recent studies have shown some interesting results.

A study at Harvard Medical School was conducted of the connection between learning a new task and dreaming during short naps. During these naps, researchers knew that the students did not enter REM sleep. This means the eyes were not moving, which indicates they were not in a deep sleep, which brings less bizarre dreams. These students were asked to complete a maze on the computer, this maze was very difficult. After sometime they took a break, during which half took a 90 minute nap. Only four out of the half (50 people) who slept recalled dreaming about the maze. Those same for had much less difficulty complete the maze after that. This research does not mean that the dream itself helped anything, but that the brain dreamt about the maze because it was learning.

One of the most daunting questions about dreaming has always been what causes them, and how are they connected to activity in real life. Researchers in Germany found that activity awake and asleep were in many cases very similar.

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WRITING TASK 1

In this experiment the scientist collected a group of people who were capable of lucid dreaming. This means that they were able to control parts of their dreams. The scientist asked the dreamers to dream about clenching both fists, first left then right. Only one subject was able to do this. When he did, his muscles did move and his eyes were twitching, meaning he was in a state of REM sleep. During his dream the scientist recorded his brain activity. When he woke, the researcher told him his dream, then they asked him to perform the same tasks while awake. When he did he had the activity in similar parts of the brain. This shows whether awake or asleep, the brain experiences similar activity and patterns.

In another experiment at Vanderbilt, short term sleep was tested. The researcher let the patients fall asleep, awakening them shortly after and asked the to immediately describe what they saw. This continued throughout the night. Then they were asked to look at some pictures some of which were from their dreams. After all the data was collected, a computer program analyzed it and was able to match most the dreams and pictures.

We may never fully understand human brains. But we can analyze how it works and hopefully understand why. So that we may try to fix and improve on many things, and better understand the mind.

Anchor Paper 10

Score Points

D: 3

This student response utilizes relevant and sufficient evidence from the passages (*Only four out of the half [50 people] who slept recorded dreaming about the maze*) in the form of paraphrase.

F/O: 3

This response contains both a relevant introduction and conclusion. The organizational structure is strong but there are some gaps in cohesion between the discussions of the passages. Also, earlier passages being discussed in more depth than the later passages, showing a lapse in focus.

L: 3

This response shows a consistent command of precise language and domain specific vocabulary (*One of the most daunting questions about dreaming has always been what causes them, and how are they connected to activity in real life*). The responses also demonstrates a formal style and objective tone.

C: 3

This response has some minor errors in conventions, but they do not interfere with the understanding of the response.

Anchor A-11

WRITING TASK 1

Dreams are fascinating. You can just be laying down in your bed, peacefully unattached to the world, when all of a sudden wild images and thoughts merge together to form this wild and perplexing journey throughout your mind. But mind aside, what about your brain? What on Earth could possibly be happening in that huge chunk of muscle, hidden beneath your skull to cause all of this commotion? Well, researchers all across the world have been working hard to try and figure this out, and with their research and recorded data, we just might be able to figure it out.

So here's a bit of info you may already have known: your brain is always working. This fact can be further supported by the work of Robert Stickgold, a cognitive neuroscientist at Harvard Med. School. In his experiment, volunteers would try and solve a computerized maze. At first, the task seemed to be quite the challenge. However, after taking a break and making a few participants take a nap, his research found that those who did nap were able to solve the maze quicker and more efficiently than before. And why is that? Dreams! Those whom completed the maze faster had dreamt about the maze amidst their nap. Stickgold however notes that it was not because of the dream the participants were able to complete the maze better, it's because while

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WRITING TASK 1

Sleeping, the brain tries to analyze and solve problems and tasks, while the dreams simply mirror what the brain is processing. So as said previously, the brain is always working, even when you think it isn't amidst catching those zzz's.

More research on this topic has been performed at the Max Planck Institute of Psychiatry in Munich, Germany, by Michael Czisch. In his experiment, he attempted to "take a picture of a dream", meaning that through the technology of fMRI, he would be able to actually see what was going on within a participant's brain while they were dreaming. For his experiment, he gathered several people capable of lucid dreaming (dreaming to which you are fully aware that you are dreaming and can control what happens within it) and gave them a simple task to do while dreaming - squeezing your hands for example here. As the participants were loaded into the fMRI machine, they began attempting to lucid dream and accomplish the task given prior to the experiment. One person was successful in achieving this, and while performing the task, Czisch began studying their brain activity. Czisch found that when the participant squeezed his hands, the sensorimotor cortex (part of the brain that controls body movement) lit up immediately, as if it would if the participant were awake. What does this show? It shows that the brain doesn't change much in activity.

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WRITING TASK 1

When deep in sleep compared to being fully awake and alert.

In the next set of studies, performed by neuroscientist Frank Tong of Vanderbilt University, and Japanese neuroscientist Yukiyasu Kamitani, we learn even more in-depth on brain activity both when awake, and when asleep. In Kamitani's experiment, he had 3 male participants come in and spend the night in his lab, bringing a new meaning to the term "sleepover". Not much sleeping occurred however, for the experiment involved the participants falling asleep in an fMRI machine then suddenly being awoken again to describe what they were dreaming. This process continued on, until the participants were woken up yet again to look at some images. The images were that of what was described in the participants' dreams, to which they quickly recognized. All of this information was then put into a computer program that analyzed all of this data. The program noted patterns that were found within the information as being very similar, further proving that the brain, regardless of being awake or asleep, is constantly working in the exact same ways.

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WRITING TASK 1

So in conclusion, we can agree that dreams can give us a pretty good look into what's going on in your brain while you're out cold dozing. It also shows that the behavior of your brain is affected very very little while sleeping. It shows that you're still solving complex problems and what not, even though your conscience is quite unaware of it. Yes, brains are fascinating, dreams are fascinating, you're fascinating. With all this info in mind, hopefully you won't have trouble sleeping tonight pondering on all of this.

Anchor Paper 11

Score Points

D: 4

This response uses well-chosen and relevant evidence, and then thoroughly and accurately explains it (*it's because while sleeping, the brain tries to analyze and solve problems and tasks, while the dreams simply mirror what the brain is processing*).

F/O: 4

This response contains a relevant introduction (*Well, researchers all across the world have been working hard to try and figure this out*) as well as a relevant conclusion. The response also effectively creates cohesion between the ideas presented.

L: 3

The response creates a formal style, but the style lapses occasionally (*So here's a bit of info you may already have known*). The response does illustrate a consistent command of precise language and literary techniques.

C: 4

This response demonstrates consistent and sophisticated command of grade-level conventions.

Anchor A-12

WRITING TASK 1

Brain-Activity and Dreaming

Dreaming and the correlations it has with brain activity is an interesting thing to think of. Brain activity is able to affect the way people dream as they sleep in many different concepts. Studies have been done to prove or see how interesting the relationship between dreaming and brain activity is. "Dreaming Makes Perfect," "What a Dream Looks Like" and "The Stuff of Dreams," written by Stephen Ornes, all have information and ideas to say that dreaming and brain activity influence each other.

First off, scientists say that there is a connection between dreams and memory in people learning a new concept. Neuroscientist + Psychiatrist Stickgold conducted an experiment to research this connection. "In the study, 99 college students between the ages of 18 and 30 each spent an hour on a computer trying to get through a virtual maze. The maze was difficult, and the study participants had to start in a different place each time they tried - making it even more difficult. They were also told to find a particular picture of a tree and remember where it was" (Ornes 5). Half of the participants were asked to then take a nap and the other half was asked to stay awake. Stickgold wanted to see the participants' NREM, or "rapid eye movement" by asking those who took a nap what they had dreamt about. He found that some of the participants dreamt about the maze and when they tried again they did better. "Stickgold suspects the dream itself doesn't help a person learn - it's the other way around. He suspects that the dream was caused by the brain processes associated with learning" (Ornes 9). This study shows that dreams and memory have a relationship. Dreams are able to help or improve the memory of people learning something new.

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WRITING TASK 1

Next computers can help people understand how brain activity and dreaming are related. Studies have shown that computers can give an analysis about what people are dreaming by comparing the brain activity of people when they were both awake and asleep. "The new results are "striking," says neuroscientist Frank Tom of Vanderbilt University in Nashville. Tom said that the experiment shows "brain activity during dreaming is very similar to activity during wakefulness" (Ornes 20). This helps scientists understand how the brain can make images and the state of the brain. Another study conducted by neuroscientist Yukiyasu Kamitani wanted to study dreams by studying participants in early stages. Three participants were tasked into sleeping and waking up to tell the scientist what they saw in their dreams. They then were shown pictures while they were awake and the brain activity was recorded. "Kamitani says the study suggests that the brain experiences real and dreamed images in similar ways" (Ornes 29). This shows that brain activity and dreaming are correlated based on the activity patterns of someone who is awake and someone who is not.

Dreaming and brain activity have many different relationships to the way people sleep or even to how someone can remember a task or process. Studies suggest that the brain activity of someone and the dreams that they dream have many correlations. The findings of these experiments are very interesting and today studies are still being conducted to figure out all the connections of the brain and dreaming.

Anchor Paper 12

Score Points

D: 4

This response utilizes well-chosen evidence and accurately explains the evidence provided (*This study shows that dreams and memory have a relationship. Dreams are able to help or improve the memory of people learning something new*).

F/O: 4

The response has an effective introduction and conclusion. The response also clarifies relationships between the passages to create cohesion (*Studies suggest that the brain activity of someone and the dreams that they dream have many correlations*).

L: 4

This response effectively establishes and maintains a formal tone as well as illustrating a consistent and sophisticated command of language (*This shows that brain activity and dreaming are correlated based on the activity patterns of someone who is awake and someone who is not*).

C: 4

This response demonstrates consistent and sophisticated command of grade level conventions, evident in the correct punctuation of the multiple quotations used.