B.E.S.T. Writing Anchor Sets

Spring 2025 – Grade 8

The Florida Department of Education is publishing the Benchmarks for Excellent Student Thinking (B.E.S.T.) Writing scoring anchors and annotations in support of its efforts to maintain transparency of the scoring process for Florida's statewide, standardized Writing assessments. These anchors can be used as a resource for Florida educators, schools, and districts regarding the scoring of student responses on the B.E.S.T. Writing assessments.

Each spring, students in grades 4–10 are administered a set of source texts and a writing prompt based on those sources. Students respond to one of two possible modes – expository or argumentative – and must draw on reading and writing skills while integrating information from the source materials in order to develop and draft a typed, cohesive essay response.

Anchor sets are used as a primary reference for expert scorers as they score student responses to prompts and sources provided during the spring B.E.S.T. Writing administration. Essays selected for the anchor demonstrate a range of skill levels within each scorepoint on the B.E.S.T. Writing rubric. A bulleted annotation follows each response to explain the prominent characteristics of the response in each domain – *Purpose and Structure*, *Development*, and *Language* – described in the rubric. As scorers read student responses, they use the anchor to help determine which scorepoint best fits a response holistically.

As with all assessment content, papers selected for the anchor set are reviewed by multiple committees of Florida educators and include members of the *Just Read, Florida!* office and State Regional Literacy Directors (SRLDs). After these meetings, the state's scoring subcontractor, Data Recognition Corporation (DRC), and the Department's English Language Arts (ELA) content teams assemble final materials for scorers.

All responses are scored holistically; however, responses at any grade level that do not include source citation cannot earn a score higher than 2 in the *Development* domain.

For more information about the B.E.S.T. Writing assessments, visit https://www.fldoe.org/accountability/assessments/k-12-student-assessment/best/. For questions about this document, please contact Assessment@fldoe.org.

Florida Anchor Key

Grade 8	EXP			Item #37750	Astronauts Adapt
Paper	P/S	D	L	Name	Lithocode
A-1	1	1	1		770002083064
A-2	1	1	1		770004695313
A-3	1	1	1		770002084147
A-4	2	2	2		770002031617
A-5	2	2	2		770004670728
A-6	2	2	2		770002033378
A-7	2	2	2		770004687330
A-8	2	2	2		770004659426
A-9	3	3	3		770004659776
A-10	3	3	3		770002031723
A-11	3	3	3		770004677432
A-12	3	3	3		770002033206
A-13	3	3	3		770004697017
A-14	4	4	4		770002031182
A-15	4	4	4		770002082932
A-16	4	4	4		770004678182

A-1

Grade 08 Writing Q37750 INF

Write an expository essay about the adaptations astronauts must make to meet the ~~challe~~nges of being in outer space.

1/1/1

Being tied up no gravity and not that much food and knowing the risks and knowing the rules to the space station and knowing the dangers it comes with in space and that they might not get what the want all the time they just have to depend on what the people who own the space station so there is no order to the food so te people who are up there have to eat whats up there and if there lucky they will get a good meal.

RF-2

A-1 **770002083064**

1 – Purpose/Structure – Below grade-level performance demonstrated

- A central idea is absent, demonstrating lack of awareness of task.
- No discernible organizational structure is present.
- Transitions are few and do little (*so*).
- No introduction or conclusion is present—the response being only one lengthy run-on sentence.
- Response is too brief to demonstrate knowledge of purpose, structure, or task.

1 – Development – Below grade-level performance demonstrated

- Little understanding and development are demonstrated.
- Elaboration consists of confusing ideas (*they just have to depend on what the people who own the space station so there is no order to the food so te people who are up there have to eat whats up there and if there lucky they will get a good meal*).
- Evidence from sources is absent.
- Citation is not provided.
- Response is too brief to demonstrate knowledge of elaboration, topic, or sources.

1 – Language – Below grade-level performance demonstrated

- Vocabulary and word choice are vague and confusing (*risks; rules; dangers; what the want; up there; whats up there*).
- Sentence structure is confusing. There is one over-coordinated sentence, including run-ons.
- Use of incorrect grammar (errors in usage, punctuation, and spelling) demonstrates lack of command of standard English conventions, often obscuring meaning.
- The tone is too conversational, thus inappropriate (*Being tied up no gravity and not that much food and knowing the risks and knowing the rules*…).
- Brevity with errors demonstrates a lack of command of language skills.

A-2

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

1/1/1

the challenges of being in space are that theres no gravity that means that they can float forever they can get lost in space and never come back and relly cold in space and they can freeze to death and theres no oxegen in space so they cant breth and when they get on the rocket ship tje ship can explode and they can die and they dont have alot of food and the food that they get is ot relly good they will live but its not esay and your not going to get use to it fast but you will and astronatus dont exercise they re in space if astronauts dont exercise their bodies start losing bone and muscle bone and muscle loss mean decreased in size and strenght and can reduce an astronauts ability to do work becuse it makes them weak . its also hard to sleep in space becuse of gravity and there sonly four bunck beds and if theres more then 4 creaw members ther going to have to sleep in a sleeping bag and it hase been reported that they have nightmares in space and you can get alot of motion sickness when you get back to earth your going to feel strange and scared and you will throw up maybe idk but you think there is still no gravity and its wirred.

RF-19

A-2 **770004695313**

1 – Purpose/Structure – Below grade-level performance demonstrated

- The central idea (*the challenges of being in space are that theres no gravity that means that they can float forever they can get lost in space and never come back and relly cold in space and they can freeze to death and theres no oxegen in space so they cant breth and when they get on the rocket ship …*) is confusing, demonstrating lack of awareness of task.
- Little organizational structure is discernible.
- A few simple transitions are provided (*so; but; also*) but do little to connect ideas.
- The introduction (first few lines) and the possible conclusion (*when you get back to earth your going to feel strange and scared and you will throw up maybe idk but you think there is still no gravity and its wirred*) create some confusion.

1 – Development – Below grade-level performance demonstrated

- Minimal understanding of the topic and a lack of development are demonstrated.
- Elaboration consists of confusing ideas (*…they don't have a lot of food and the food that they get is ot relly good they will live but its not esay and your not going to get use to it fast but you will and astronatus don't exercise they re in space*).
- Evidence from sources is confusing.
- There is no citation.

1 – Language – Below grade-level performance demonstrated

- Vocabulary and word choice are unclear (*they don't have alot of food and the food that they get is ot relly good*; *your not going to get use to it fast but you will; its wirred*).
- Sentence structure is confusing (*… they can float forever they can get lost in space and never come back and relly cold in space and they can freeze to death*…).
- Use of grammar (missing punctuation and run-ons, capitalization, spelling, usage) contains density and variety of severe errors, demonstrating lack of command of standard English conventions, often obscuring meaning.
- The tone is rather inappropriate for being conversational and using texting language (*idk*).
- Density of errors (<u>not brevity</u> of what is written) demonstrates lack of command of language skills.

Grade 08 Writing Q37750 INF

Write an explanatory essay about the adaptations astronauts must make to meet the challenges of being in outer space.

1/1/1

To begin with astronauts have to get used to space and get used to how they have to eat now.And how they have to sleep.

To start off with is that when the astronauts go to sleep they have to strap themselves down to the wall,bunk beds,comanders seat,and even the sleeping bags.Ans they have to have 8 hours of sleep for every new day.And it is hard for them to sleep because the sun comes up every 90 mins.

Secoundly when astonauts go to eat they dont have refregeraters,frezers,or ovens for they have to use pouches to cary their food in so it dosent go flooting around in the space ship.

Thirdly they also have to get used to motion sickness cause when they are moving around the space ship they are not walking they are floating cause there is no gravity.And motion sick can also mess with how many hours of sleep the astronauts.

Finaly astronauts are now ready for there real adventure in space. After they have learned how to eat, sleep and move around in the space ship.

RF-12

A-3 **770002084147**

1 – Purpose/Structure – Below grade-level performance demonstrated

- The central idea (*To begin with astronauts have to get used to space and get used to how they have to eat now.And how they have to sleep*) is ambiguous—no expression of challenges/difficulties in the process, demonstrating lack of awareness of task.
- There is a weak organizational structure (physical paragraphing but no focus/original work).
- Basic external transitions *(To begin with; To start off; Secoundly; Thirdly; Finaly*) are used to order topics/paragraphs. Internal transitions (*also; after*) do little to connect ideas.
- The introduction and conclusion are simplistic and brief iterations of a central idea.

1 – Development – Below grade-level performance demonstrated

- There is a lack of development demonstrated.
- Elaboration consists of weak paraphrase or is minimal attempt (*And it is hard for them to sleep because the sun comes up every 90 mins* (end of body Parag. 1), demonstrating little knowledge of elaborative techniques.
- Evidence from sources is vague and unsupportive of any clearly set topic.
- Appropriate citation is lacking.

1 – Language – Below grade level performance demonstrated

- Vocabulary and word choice (original writing) are minimal and confusing (*cause* for "because"; *mess with*).
- Sentence structure is confusing (*And how they have to sleep* (Introduction); *Thirdly they also have to get used to motion sickness cause when they are moving around the space ship they are not walking they are floating cause there is no gravity.And motion sick can also mess with how many hours of sleep the astronauts* (body Parag. 3)).
- Use of grammar (various errors in punctuation, spelling, and usage—with density) demonstrates lack of command of standard English conventions.
- Tone or voice do little to enhance the essay.
- Density and variety of errors (<u>not brevity</u>) demonstrates a lack of command of language skills.

Grade 08 Writing Q37750 INF

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

2/2/2

Astronauts use many adaptations to survive the harsh outer space. these adaptations are sleeping, and exercise.

First of all sleeping the astronauts have to get used to sleeping in space. It states in the passage "Space sleep" that "On the space shuttle, astronauts can also sleep in the commander's seat, the pilot's seat or in the bunk beds." The astronauts have to adapt to sleep in the space shuttle. It also states that "two small crew cabins. Each one is just big enough for one person." "The astronaght can sleep any where as long as they attach themselves to something." This means that astronauts have to take turns sleeping in the cabins and one astronaut has to sleep somewhere else.

Second of all exercise astronauts have to exercise in space. It states in the passage "Your Body in Space: Use It or Lose it" that "If astronauts don't exercise, their bodies start losing bone and muscle.' This means that astronauts have o get used to exercise in space or else it could cause damage to thei body. It also states that "In space astronauts use three pieces of equipment to exercise." this execise means that exercise is the most important health priority and a adaption astronauts have.

So the adaptations astronauts have are sleeping and exercise.

RF-3

2 – Purpose/Structure – Approaching the range of grade-level performance

- The central idea (*Astronauts use many adaptations to survive the harsh outer space. these adaptations are sleeping, and exercise*) is insufficiently sustained within the task.
- The organizational structure is repetitive, disrupting the advancement of ideas.
- Transitions attempt to connect ideas *(First of all; also; Second of all; So*), but they are few and low on variety.
- The introduction is brief/simplistic (consisting of only a statement of the central idea), and the conclusion is briefer and repetitive.

2 – Development – Approaching the range of grade-level performance

- Development demonstrates partial understanding of the topic.
- Elaboration attempts to develop the central idea (*The astronauts have to adapt to sleep in the space shuttle* (body Parag. 1); *This means that astronauts have o get used to exercise in space or else it could cause damage to thei body* (body Parag. 2)) but relies heavily on the sources and is repetitive.
- Evidence is partially integrated with direct quotations.
- Appropriate citations are included (*in the passage "Space Sleep"*; *in the passage "Your Body in Space: Use it or Lose it"*).

2 – Language – Approaching the range of grade-level performance

- Vocabulary and word choice are imprecise (*survive; harsh; get used to; damage*), demonstrating partial command of the expression of ideas.
- Sentence structure is partially controlled, lacking grade-appropriate language facility.
- Inconsistent use of correct grammar (errors in punctuation, spelling, capitalization, and usage) demonstrates partial command of standard English conventions.
- Tone/voice does not elevate the response beyond the score of 2.

A-5

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

2/2/2

In order to survive on a space craft astronauts face many challanges and take many percautions. Some of their challanges include finding a place to sleep, floating food, getting enough exercise. All these things are very important challanges astronauts worry about in space.

Sleep is the very thing that gives us the energy to do things, which is why we need alot of it. Not enough sleep can cause problems on earth just as much as in space maybe even more. Giving the fact that there is no gravity in space you are floating around which can cause problems when you are sleeping. It states in source 1 paragraph 2 "As a result, astronauts are weightless and can sleep in any orientation. However, they have to attach themselves to a wall, a seat or a bunk bed inside the crew cabin so they dont float around and bump into something". Astronauts have to tie themself to something when they sleep so they dont go floating off.

Food is also an important factor when it comes to surviving. Eating on earth is much easer then in space beacuse we have gravity. So they came up with a way to eat meals in space. In source 2 paagraph 11 it sates " Mealtime in microgravity usally consists of thermo-stabilized or freeze-dried entrees and snacks in disposable packages and pouches. Asrouants heat them up in a oven with a fork straight out of the package". Freeze dried foods can make it lasts for months and it does not take much to prepare.

Exercise keeps the balance and strength to do things. Without it our body doesent gain it's benifits and we would be weak which can cause fainting. It states in source 3 paragraph 27 "With no gravity and less blood volume, astronauts are more prone to fainting. Again, exercise can help increase blood volume and circulation. That helps prevent fainting". Excersise is also very useful in space as it is on earth.

In concluion their are many living problems in space but over the years astronuts have worked around them and came up with ways to solve problems. Like places to sleep, Floating food, and enough exerscise.

RF-7

A-5 **770004670728**

2 – Purpose/Structure – Approaching the range of grade-level performance

- The central idea (*In order to survive on a space craft astronauts face many challanges and take many percautions. Some of their challanges include finding a place to sleep, floating food, getting enough exercise*) is insufficiently sustained within the task.
- The organizational structure is inconsistent, disrupting the advancement of ideas. For every body paragraph, there is a set-up of the topic, a supporting direct quotation, followed by a brief extension in paraphrase.
- Transitions are rather basic *(In order to; also; So; Without; In conclusion; but)* but show a bit of variety in the attempts to connect ideas.
- Being little more than a statement of the central idea, the introduction is ineffective; the conclusion is simplistic.

2 – Development – Approaching the range of grade-level performance

- The development demonstrates a partial understanding of the topic.
- Elaboration attempts to develop the central idea (*Not enough sleep can cause problems on earth just as much as in space maybe more* (body Parag. 1); *Eating on earth is much easer then in space because we have gravity* (body Parag. 2); *Exercise is also very useful in space as it is on earth* (body Parag. 3)) but relies heavily on the sources and is somewhat repetitive.
- Evidence from sources is partially integrated.
- Appropriate citations are present (*source 1 paragraph 2*; *source 2 paragraph 11*).

2 – Language – Approaching the range of grade-level performance

- Vocabulary and word choice are imprecise (*percautions; important; problems; balance; useful*), demonstrating partial command of the expression of ideas.
- Sentence structure is partially controlled.
- Inconsistent use of correct grammar (with errors in punctuation, spelling, and usage) demonstrates partial command of standard English conventions.
- Tone/voice does not elevate the response beyond the score of 2.

A-6

Grade 08 Writing Q37750 INF

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

2/2/2

Adaptation, its something animals do but so do we. Animals have to adapt to new enviorments sometimes, same goes for us. I am going to explain the adaptations astronauts must make to meet the challenges of being in outer space. Mostly on Astronauts sleeping, their food and body in space.

As you prepare to sleep astronauts are too, except a bit different. It happens to be that the gravity allows them to bump into stuff when they are sleeping. This can cause a problem maybe with controls or anything else. To prevent this from happening crew members attach themselves to what they are sleeping on. According to source one Space Sleep it states "However, they have to attach themselves to a wall, a seat or bunk bed inside the crew cabin so they dont float around and bump into something." Being attached to something while your sleeping can be hard, its something they have to adapt to.

Gravity can cause alot of things but one of them is make food float. For the crew members it is hard to eat stuff, like cookies. Its hard for them to eat cookies because it has a crumbling texture and makes a mess. According to source two Everything You Never Thought to Ask about Astronaut Food says "Crumbs are very difficult to deal with in microgravity because they're just messy." The food is usually thermo stabilized or freeze dried to keep fresh and less mess, so they dont have refrigerators meaning no leftovers. It states in source two Everything You Never Thought to Ask about Astronaut Food says "Mealtime in microgravity usually cosists of thermo stabilized or freeze dried entrees and snakes in disposable packages or pouches."

Just like you exercise on Earth crew members in space exercise as well. But the crew members do exercise for another reason. Exercise is the most important thing in space because if you dont it can give you problems in health. It states in source three Your Body in Space that "If astronauts dont exercise, their bodies start losing bone and muscle. Bone and muscle loss mean decreased size and strength, and can reduce an astronauts ability to do work because it makes them weak."The healthier they are the better.

In conclusion, astronauts must make to meet the challenges of being in outer space. Some challenges Astronauts must face is food, sleeping and body their in space. These three are essencial to survive in space and the most important.

RF-11

2 – Purpose/Structure – Approaching the range of grade-level performance

- The central idea (*I am going to explain the adaptations astronauts must make to meet the challenges of being in outer space. Mostly on Astronauts sleeping, their food and body in space*) is insufficiently sustained within the task.
- The organizational structure is inconsistent, disrupting the advancement of ideas. For example, the first body paragraph is more original than the others.
- Transitions attempt to connect ideas *(As; but; so; Just like; In conclusion*) but show little variety.
- The introduction includes an original set-up followed by a statement of the central idea, but it is ineffective; the conclusion is repetitive and unclear.

2 – Development – Approaching the range of grade-level performance

- Development demonstrates an incomplete understanding of the topic.
- Elaboration attempts to develop the central idea (*Being attached to something while your sleeping can be hard, its something they have to adapt to* (body Parag. 1); *The healthier they are the better* (body Parag. 3)) but relies heavily on the sources through direct quotations and paraphrase, making it ineffective.
- Evidence is partially integrated.
- Appropriate citation is present (*According to source one Space Sleep*).

2 – Language – Approaching the range of grade-level performance

- Vocabulary and word choice are imprecise (*stuff; something; alot of things; problems)*, demonstrating partial command of the expression of ideas.
- Sentence structure is partially controlled.
- Use of correct grammar is inconsistent: punctuation, usage, and spelling contain multiple distracting errors (*Some challenges Astronauts must face is food, sleeping and body their in space* (Conclusion)), demonstrating partial command of standard English conventions.
- Tone and voice are rather informal/casual (*its something animals do but so do we. Animals have to adapt to new enviorments sometimes, same goes for us* (Introduction)) and inconsistent.

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

2/2/2

The adaptations that astronauts must make to meet the challenges of being in outer space are sleep and eating food. Many of the daily routines people have today are very different from the routines of astronauts. The life of an astronaut is very unique yet very hard to adapt to their life style.

To start off, one main reason astronuats need to meet the challenges of being in outer space is how they sleep. According to source 1 " Space sleep (pargraph 2) " it states that " However, they have to attach themselves to a wall, a seat, or a bunk bedinside the crew cabin so they don't float around and bump into something. " Imagine this an astronaut at night is sleeping and out of nowhere the astronaut hits they're head against the wall. These are very real possibilites sleeping in space making it extremely dangerous. Another example stated in source 1 " Space sleep (pargraph 7) " it says that " Sleeping in the shuttle's cockpit can also be difficul since the sun rises every 90 minutes during a mission. " This is a very cause and effect relationship because as the astronaut tries to sleep the astronaut's sleep is effected by the sun which wakes the astronaut up every 90 minutes because of the sun. The effects can make the astronaut sick, tired, and have trouble sleeping and living in outer space.

Secondly, another main how astronauts must adapt to living in outer space is the way they eat. In the article " everything you never thought to ask about astronaut food (pargraph 21) " it says that " there's very few foods in our current food system that would maintain sufficent quality after that long ". This goes to show in an explaination that even if they are full after eating a lot of food and they have leftovers they cannot eat them ecause of the their short supply of food in outer space. This also goes to show no refrigerators, microwaves, or freezers means no leftovers. One last reasoning to back up my statement is shown in (pargraph 12) of " everything you never thought to ask about astronaut food " which basically says that most food must be prepared and tested in a labratory (paraphrased). This makes it hard for astronauts safety to know what to eat because some food may get them potentially sick or even die. The effects are very dangerous which makes it hard for astronauts to be comfortable eating food in space.

To conclude, Eating and sleep in space makes it very hard for astronauts to adapt to that life style. Many believe that it is very dangerous but to verify, it really is. Space is not where you can just call someone for help instantly. The life of an astronaut is very risky.

RF-40

2 – Purpose/Structure – Approaching the range of grade-level performance

- The central idea (*The adaptations that astronauts must make to meet the challenges of being in outer space are sleep and eating food*) is insufficiently sustained within the task.
- Organizational structure is repetitive, disrupting the advancement of ideas.
- Transitions attempt to connect ideas (*To start off; Secondly; also; One last; To conclude)* but are low on variety.
- Introduction goes a little beyond the central idea to note the contrast between astronauts' habits in space with people's habits on earth. But it is still ineffective. The conclusion shows some attempt at originality (using contrast again), but it is ineffective as well.

2 – Development – Approaching the range of grade-level performance

- Development demonstrates an incomplete understanding of the topic.
- Elaboration attempts to develop the central idea but relies rather heavily on the sources and provides loosely related information/ineffective extensions (*This makes it hard for astronauts safety to know what to eat because some food may get them potentially sick or even die. The effects are very dangerous which makes it hard for astronauts to be comfortable eating food in space* (end of body Parag. 2), *This goes to show in an explaination that even if they are full after eating a lot of food and they have leftovers they cannot eat them ecause of their short supply of food in outer space* (first part of body Parag. 2)).
- Evidence is partially integrated.
- Evidence is appropriately cited (*According to source 1 "Space sleep (paragraph 2)"*).

2 – Language – Approaching the range of grade-level performance

- Vocabulary and word choice include some that are a little better than basic (*routines; very unique; extremely; potentially; comfortable; verify; instantly; risky),* hinting at a better than partial command of the expression of ideas.
- Sentence structure is partially controlled. For example, clarity and grade-appropriate language facility is not demonstrated in the following sentences: (*The life of an astronaut is very unique yet very hard to adapt to their life style* (Introduction); *This is a very cause and effect relationship because as the astronaut tries to sleep the astronaut's sleep is effected by the sun which wakes the astronaut up every 90 minutes because of the sun* (end of body Parag. 1)).
- Use of correct grammar is inconsistent: punctuation (*Imagine this an astronaut at night* …), usage (*they're* for "their"; *die* for "dead"; *makes* for "make"), spelling (*astronuats*; *possibilites*; *difficul*; *explaination*; *ecause*; *labratory*) , and capitalization (*Space sleep*; *everything you never thought to ask about astronaut food*; *To conclude, Eating and sleep*) contain distracting errors, demonstrating partial command of standard English conventions.
- Tone/voice does not elevate the response beyond the score of 2.

A-8

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

2/2/2

While in space you go through many challenges. We will be talking about how to adapt to those changes so you can live in space. Some of those challenges are sleeping, eating, or exerciseing. We are going to tell you how to adapt to the challenges if you ever go to space one day.

On earth most people have a comfy bed to go home to after a long day of work. whether is queen, king, twin or any other sizes of beds, you will never have to worry about floating around while sleeping. Astronauts have to go through that challenge because there is no gravity in outerspace. Astro nauts have to use special straps to keep the down from floating and accidently hitting something important or dangerous. Unlike earth there is no night time because your in outerspace so there is sun while your trying to sleep. To prevent the astronauts from waking up the use special mask to cover their face while their sleeping. Those are only two of many struggles astronauts go through on a daily. After they wake up they need some type of nutrition and the way they get that is from food.

Earth has many options of food to pick from such as american or mexican food. You could go anywhere in the world and find something unique to eat. Astronauts have to adapt to this and get freeze dried food or thermo-stabilie food. Even though it may not taste as good as bufflo wings on superbowl sunday it keeps their bellys full. Its also easier to store since there are no refridgerators in outerspace. Even thought there not in our circumstsnce they have 200 food and beverage options to choose from. Even if they eat good foods there has to be a way for them to burn off those calories and thats why they exercise.

Most people have goals for their weight so they go and exercise. wheter its the gym or just jogging around their neighbor hood they do some type of exercising. In space they have to work out to survive. Scientist showed that if Astronauts dont exercise they start to loose bone and muscle. This makes them unable to do whatever their job is. That is why Astronauts devote two and a half hours a day working out to stay in shape. Another reason why they need to stay in shape is becuase if there is an emergency on the ship they need to evacuate as quick as possible. Exerciseing also helps blood pump through their body giving the brain blood. You may ask how they exercise in space, well they exercise with: Cycle Ergometer, Treadmill, and Resistance Exercise Device (RED). Now that we educated you with most of the challenges and how they adapt we can finish this.

Astronauts go through many struggles on a daily such as sleeping which is easy for us on earth. So this shows how mentally and physiclly strong you have to be to live in outer space because of all the troubles that come with it.

RF-55

2 – Purpose/Structure – Approaching the range grade-level performance

- The central idea (*Some of those challenges are sleeping, eating, or exerciseing. We are going to tell you how to adapt to the challenges if you ever go to space one day*) is insufficiently sustained within the task.
- The organizational structure is somewhat repetitive.
- Transitions do show some variety (*While; whether; Unlike; After; Even though; also; Even if; Another; Now; So*) and are mostly purposefully used to connect ideas.
- The introduction has a set-up showing reader awareness before and after stating the central idea (…*so you can live in space*; …*tell you how to adapt to the challenges if you ever go to space one day*), but it is overall ineffective; the conclusion shows a bit of originality (*So this shows how mentally and physiclly strong you have to be to live in outer space because of all the troubles that come with it*) but is just brief, thus ineffective.

2 – Development – Approaching the range of grade-level performance

- Development demonstrates incomplete understanding of the topic.
- Elaboration attempts to develop the central idea (*Unlike earth there is no night time because your in outerspace so there is sun while your trying to sleep* (body Parag. 1); *Even though it may not taste as good as bufflo wings on superbowl Sunday it keeps their bellys full* (body Parag. 2); *wheter it's the gym or just jogging around their neighbor hood they do some type of exercising* (body Parag. 3)) but relies heavily on the sources and provides loosely related information (specifics on bed types—*queen, king, twin*--; national foods—*american or mexican*).
- Evidence from sources is partially integrated.
- No citation provided.

2 – Language – Approaching the range of grade-level performance

- Vocabulary and word choice include imprecise or basic ones (*comfy bed; accidently; prevent; special; struggles; options; unique; circumstsnce; calories; goals; mentally; physiclly; troubles*), demonstrating a little better than partial command of the expression of ideas.
- Sentence structure is partially controlled—with more than simple sentences.
- Inconsistent use of correct grammar—frequent errors in usage (*the* for "them"; *mask* for "masks"; *your* for "you're"; *their* for "they're"; *Its* for "It's"; *there* for "they're"; *Scientist* for "Scientists") and spelling (*accidently*; *bufflo*; *Exerciseing*; *physiclly*), some errors in capitalization (whether; *american*; *mexican*; *sunday*) and punctuation—sometimes distracts, demonstrating partial command of standard English conventions.
- The tone shows some informal/conversational aspects (*We will be talking about…*; *We are going to tell you…*), so does the voice (*Now that we educated you with most of the challenges and how they adapt we can finish this*). They are inconsistent overall.

A-9

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

3/3/3

Have you ever wondered what astronauts have to go through in order to stay in space for a long period of time? Well, some things they have to adjust to include, the way they sleep, what they eat, and how much exercise they are getting. Astronauts have to change some of their ways in order to survive in space and stay healthy.

One thing astronauts have to change is how they sleep. We are typically adjusted to having to sleep in a bed, on a planet that naturally keeps us down on it. In space, there is no gravity keeping the astronauts held down. In some space stations, there are four bunkbeds. Only enough room for four people. So if there is a 5 astronaut mission in a space craft that only has 4 bunkbeds, the 5th astronaut may sleep anywhere. In the first passage, paragraph 4 it states, "If it's okay with the commander, the astonaut can sleep anywhere in the space station so long as they attach themselves to something." Astronauts can practically sleep anywhere, but sometimes that isn't as fun as it seems. They have to sleep uncomfortably somewhere in a space ship and also have to deal with the disruptions of the sun coming through windows. Some astronauts get disturbed while sleeping by the sun that comes beaming into their windows every 90 minutes. Due to this, astronauts have to wear sleeping masks in order to keep the sunlight out of their eyes while asleep.

Another thing astronauts have to adjust to, is the things that they eat. Everyone is usually used to eating multiple things that they love on a plate, all at once. In space, they cannot eat their food off of plates, the food will just float around. They must eat out of premade pouches of food that get heated up in a microwave and are eaten straight out of the package. In passage 2, paragraph 12, it mentions, "Despite the almost alien process of eating, astronauts consume many of the foods they would find back home: scrambled eggs, spaghetti, chicken teriyaki, broccoli au gratin, oatmeal with rasins." It is brought to attention that astronauts do have the opportunity to eat normal foods that we eat on earth, but these foods are in disposable packaging that is just heating in a microwave.

Lastly, one oft the most important things about being in space is that the astronauts must stay healthy. In article 3, paragraph 24, it states that, "If astronauts don't exercise, their bodies start losing bone and muscle. Bone and muscle loss mean decreased size and strength, and can reduce an astronauts ability to do work because it makes them weak." So, in space astronauts can lose lots of weight and become weak, due to the lack of gravity. This means that astronauts must work out/exercise for at least 2 hours a day in order to keep their body in shape and healthy. Some of these astronauts may have not worked out when they were on earth, so this is something new to them, especially having to do it for 2 whole hours of the day. Astronauts are more prone to fainting due to there being no gravity, less blood volume and blood circulation. Exercise can help with that.

In conclusion, astronauts have to go through many asjustments in order to stay healthy and alive in space. Some of these adjustments include, how they sleep, what they are eating, and how much exercise they are getting. Well, do you still wonder what else astronauts have to adjust to?

RF-9

3 – Purpose/Structure – Within the range of grade-level performance

- The central idea (*Well, some things they* [astronauts] *have to adjust to include, the way they sleep, what they eat, and how much exercise they are getting. Astronauts have to change some of their ways in order to survive in space and stay healthy*) is focused on the task and generally maintained throughout.
- The organizational structure is logical and allows for the advancement of the central idea; the three topics mentioned in the introduction are chronologically addressed in the body paragraphs.
- Purposeful transitional strategies (including: *Well; One thing; In some space situations; So; but; Due to this; Another thing; Lastly; In conclusion*) connect ideas within and among paragraphs.
- Succinctly sufficient introduction consisting of a relevant rhetorical question (*Have you ever wondered what astronauts have to go through in order to stay in space for a long period of time?—* followed by an answer that brings in the central idea) and conclusion closing with another relevant rhetorical question (*Well, do you still wonder what else astronauts have to adjust to?*) contribute to a sense of completeness.

3 – Development – Within the range of grade-level performance

- There is a logical development, demonstrating understanding of the topic.
- The elaboration is adequate, including original writing that analytically expands on text evidence and paraphrase in support of the central idea (*We are typically adjusted to having to sleep in a bed, on a planet that naturally keeps us down on it. In space, there is no gravity keeping the astronauts down.* (body Parag. 1); *Some of these astronauts may not have worked out when they were on earth, so this is something new to them, especially having to do it for 2 whole hours of the day* (body Parag. 3).
- Relevant evidence from all three sources is integrated in the response to lend credibility to the exposition.
- Evidence is appropriately cited (*In the first passage, paragraph 4*; *In passage 2, paragraph 12*).

3 – Language – Within the range of grade-level performance

- Integration of academic vocabulary (*wondered; adjust to; survive; typically; naturally; uncomfortably; beaming; multiple; brought to attention; opportunity*) demonstrates clear expression of ideas.
- Sentence structure is varied (including compound sentences, as seen in the examples of elaboration above/Development domain), thus demonstrating grade-appropriate language facility.
- Use of grammar overall demonstrates command of standard English conventions—relatively few errors.
- The tone is appropriate for the overall response—with some voice in the first and last sentences.

A-10

Grade 08 Writing Q37750 INF

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

3/3/3

Astronauts risk their lifes when they go up to space. Before they go up though, there are some things they're going to have to master. Sleep and maintaning a healthy body, are just a few.

To start us off, when an astronaut goes into space and spends their whole day working on machinery, you'd imagine how tired they must be. What do they do when they get tired? The same as what they would do on earth just, a little different. Space has NO gravity what so ever. So that means that they float. When an astronauts goes to lay down they must strap themselves on to something in the shuttle. Whether it be a wall, the floor, a chair or even their own bed. Article 1, helps to better explain, " On the space shuttle, astronauts can sleep in the commander's seat, the pilot's seat or in bunk beds. There are only four bunk beds in the space shuttle. So that means on missions with five or more astronauts, the other crewmembers have to sleep in sleepings bags attached to their seats or to a wall." (3) Astronauts have to do this for saftey reasons. When you go to sleep in space your just floating. You can't control yourself when your asleep, so when you doze off you might just hit something in the shuttle. You could easily hurt yourself in the process or accidentally damage important parts to the shuttle. Getting an appropriate amount of sleep is important as well as trying to figure out where your going to sleep. The average amount of rest a human can get is 8 hours. In space its the same as well. Sleeping in space can have its ups and downs but in the morning you get soemthing amazing in return. Article 1, paragraph 7 introduces the downs," ...Sleeping in close quarters can also be disruptive since crewmembers can easily hear each other. Sleeping in the shuttle's cockpits can also be difficult since the sun rises every 90 minutes during a mission." I thought there was no sound in space!? Well I guess when your sleeping super close to one of your crewmembers, you can hear their loud snoring. The sun rising in your face when you don't have a sleeping mask can be a pain too. Who knew that sleeping in space would be this much difficult than on earth?

To proceed, some of us want to keep a healthy body just because it looks good, some of us do it because its fun to work out. In space astronauts have to do it to keep their bones and overall body stable. I don't mean to sound dramatic but when your in space and you don't exercise you doing very harmful damage to yourself. Article 3 by NASA, elaborates, " ... If astronauts don't exercise, their bodies start losing bone and muscle. Bone and muscle loss mean decreased size and strength, and can reduce an astronaut's ability to do work because it makes them weak." (24) When your weak and in space, their not too pretty combinations. When your a weakend astronaut your less likely to get anything done. Since this would be called in as an emergency the Mission Control on earth would have to send you back down. The only problem with this is that the astronauts wouldn't be able to walk when they get off the shuttle. Again in article 3, NASA provides information on what atronauts can do to help increase their blood volume. "With no gravity and less blood volume, astronauts are more prone to fainting. Again, exercise can help increase blood volume and circulation. That helps prevent fainting..." (27). On the shuttle there are 3 different types of machinery that the astronauts can use to exercise, the Cycle Ergometer, Treadmill and the Resistance Exercise Device or RED. Exercising may not be that important on earth but in space its a life saver.

To conclude, being an astronaut is fun but it has some important and basic things that need to be done while on a mission. Having a good night sleep and getting your daily exercise where some of the ones that i thought where very important to talk about. These adaptations are some that astronauts must make to meet the challenges their going to face in space.

RF-1

A-10 **770002031723**

3 – Purpose/Structure – Within the range of grade-level performance

- The central idea (*Astronauts risk their lifes when they go up to space. Before they go up though, there are some things they're going to have to master. Sleep and maintaining a healthy body, are just a few*) is focused on the task and is generally maintained throughout.
- The organizational structure (two-pronged in the last sentence of the introduction for the body paragraphs) is logical and advances the central idea.
- There are purposeful external and internal transitions (*Before; To start us off; So; When; Whether; Well; To proceed; In space; Again; On the shuttle; To conclude)* that connect ideas within and among paragraphs.
- A clearly brief but succinct introduction constituting the central idea and a rather sufficient conclusion (… *being an astronaut is fun but it has some important and basic things that need to be done while on a mission* …) contribute to a sense of completeness.

3 – Development – Within the range of grade-level performance

- The response shows logical development, thus demonstrating understanding of the topic.
- The elaboration is adequately done through the use of rhetorical techniques (*What do they do when they get tired? The same as what they would do on earth just, a little different* (beginning of body Parag. 1); *I thought there was no sound in space!? Well I guess* … (ending of body Parag. 1)), more original writing (*some of us want to keep a healthy body just because it looks good, some of us do it because its fun to work out. In space astronauts have to do it to keep their bones and overall body stable* (beginning of body Parag. 2); *Exercise may not be that important on earth but in space it's a life saver* (end of body Parag. 2)), paraphrase, and quotations in support of the central idea.
- Relevant evidence from multiple sources is integrated in a way that lends credibility to the exposition.
- Evidence is appropriately cited (*Article 1*; *(3)*; *Article 3*; *(27)*).

3 – Language – Within the range of grade-level performance

- Clear expression of ideas is helped by appropriate academic vocabulary (*to master; machinery; Imagine; process; appropriate; difficult; proceed; stable; dramatic; harmful; combinations; life Saver; basic).*
- There is variety in sentence structure, demonstrating grade-appropriate language facility.
- Grade-appropriate command of standard English conventions is demonstrated through the use of grammar overall—even with some recurring errors in usage (*lifes*; *your* for "you're"; *their* for "they're"; *where* for "were") and some errors in spelling (*soemthing*; *weakend*).
- Tone and voice (*Who knew that sleeping in space would be this much difficult than on earth?* (end of body Parag. 1) ; *I don't mean to sound dramatic but* … (beginning of body Parag. 2)) are engaging and appropriately used for the overall response.

A-11

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

3/3/3

Being an astronaut is one of the most popular jobs younger people want, but being an astronaut is harder than it looks. Astronauts have to do plenty of things everyday to make sure they survive in the void that is space. Astronauts have to think about how much sleep they get, their physical fitness, and the food they eat. If they don't mange any of these, it will be a hard time heading home.

First of all, astronauts have to manage their food. Unlike earth, astronauts can't use plates like any normal person. The food would just fly away from them. In space people have to use packages and pouches. "Mealtime in microgravity usually consists of thermo-stabilized or freeze-dried entrees and snacks in disposable packages and pouches." (Koren 11) Astronauts can't eat like normal people on earth, they have to eat like aliens. Astronauts have to eat them straight out of a bag with only a fork, there's no such things as refrigerators so no leftovers. No more potato chips or snacks anymore because if any food has crumbs it could get into the air filtration system and could maybe damage something. "When they get loose, they can make it into the air filtration system." (Koren 19) If it gets stuck, not only would it take forever to remove but it could maybe get caught and damage the air filter. No Cheetos or Oreos for astronauts.

Second, astronauts have to think about when they can get rest. Humans can't survive long without rest and that's one of the most worrying things about space. In space, it's really hard to get sleep. Astronauts have to attach themselves to walls because of the gravity being obsolete. "However, they have to attach themselves to a wall, a seat or a bunk bed inside the crew cabin so they don't float around and bump into something." (NASA 2) Without gravity sometimes people will have to sleep on the ceiling! To add on, the motion sickness will make it almost impossible to get rest. So bring an emergency bag! The floating while sleeping isn't the worst part, it's space itself. Space passangers have to stay in the cockpit to make sure everything is equal and that anything that can go wrong, won't go wrong. "Sleeping in the shuttle's cockpit can also be difficult since the Sun rises every 90 minutes during a mission."(NASA 7) This would just be horrible, waking up every hour and a half would astronauts get no rest. Not to mention the fact that people in space are bunched up usually, so other people might wake up and that would wake up others until everybody is awake. Hopefully astronauts don't get nightmares.

Lastly, astronauts have to be mentally capable and physically capable. Two and a half hours are used everyday for astronaut fitness. Don Hagan, the director of exercise said "No other activity except eating and sleeping is given that much priority." Space travelers have to be physically fit to survive the harshness of the void. If astronauts don't exercise they can lose their strength and become weak. "If astronauts don't exercise, their bodies start losing bone and muscle."(NASA 24) Weak astronauts would be unable to do daily needs in space. Hagan also says, if there were an emergency, the astronauts would need to be in great shape to get out of a space shuttle quickly. After landing home they would have to do physical therapy, there's a chance that they could never walk again."Once they land on Earth, weakend muscles and bones would make walking difficult. Muscle can be built back up with therapy."(NASA 25) Being fit is one of the most important adaptions astronauts need to survive in space, if people don't stay fit there's devastating conquences.

All in all, astronauts need to adapt to survive in space. Astronauts need to know the troubles of eating, sleeping, and staying fit in space. If astronauts don't abide by these three things then there are tragic conquences. All of these three things combined are what astronauts need to adapt and survive. This quote from Daniel Tani can explain the adaptions astronauts have to do to survive. "I'm looking foward to putting food on a plate and eating several things at once, which you can't do up here,"

RF-28

A-11 **770004677432**

3 – Purpose/Structure – Within the range of grade-level performance

- The central idea (*Astronauts have to do plenty of things everyday to make sure they survive in the void of space. Astronauts have to think about how much sleep they get, their physical fitness, and the food they eat*) is focused on the task and is generally maintained throughout.
- The organizational structure is logical (the three points mentioned in the introduction are developed as topics in the body paragraphs—though not following the initial chronology/order) and allows for the advancement of the central idea.
- Purposeful internal and external transitional strategies (*but; if; First of all; Unlike; not only; Second; In space; To add on; So; Not to mention; Lastly; also; All in all*) connect ideas within and among paragraphs.
- Succinctly sufficient introduction comprising a set-up, the central idea, and a relevant extension (*If they don't manage any of these, it will be a hard time heading home*) and conclusion integrating a similarly relevant extension (*If astronauts don't abide by these three things then there are tragic conquences*) contribute to a sense of completeness.

3 – Development – Within the range of grade-level performance

- Logical development demonstrates understanding of the topic.
- There is adequate elaboration—combining purposeful paraphrasing, text evidence, original writing (*Without gravity sometimes people will have to sleep on the ceiling! To add on, the motion sickness will make it almost impossible to get rest. So bring an emergency bag! The floating while sleeping isn't the worst part, it's space itself. Space passangers have to stay in the cockpit to make sure everything is equal and that anything that can go wrong, won't go wrong* (middle of body Parag. 2), and examples—to support the central idea.
- Relevant evidence from all three sources is adequately integrated, lending credibility to the exposition.
- Evidence is appropriately cited (*(Koren 11)*; *(NASA 2)*).

3 – Language – Within the range of grade-level performance

- Integration of academic vocabulary (*the void; manage; worrying; obsolete; horrible; Hopefully; mentally capable; physically capable; harshness; devastating; abide; tragic; combined*) demonstrates clear expression of ideas.
- There is variety in sentence structure, demonstrating grade-appropriate language facility.
- Use of grammar demonstrates grade-appropriate command of standard English conventions—in spite of a few errors in spelling (*passangers*; *adaptions*; *conquences*).
- The tone (academic) and voice (engaging: *So bring an emergency bag!*) are appropriate for the overall argument.

Grade 08 Writing Q37750 INF

Write an explanatory essay about the adaptations astronauts must make to meet the challenges of being in outer space.

3/3/3

Astronauts do things each day that we don't even think about in our daily lives. They live in microgravity, they have to have to deal with very cramped spaces, and they deal with many other things that we don't normally deal with on Earth. But despite all these differences, they are still human and need the same things we need to survive. In order to cope with this difference, they have improvised multiple soulutions to these problems. Astronauts have adapted to these challenges in multiple ways. 3 of these challenges are sleeping in one location, the avalibllity of food, and physical problems caused by microgravity.

It might sound strange, but astronauts have difficulties with sleeping in space. In the first passage, it states that "In space there is no up or down and there is no gravity. As a result, astronauts are weightless and can sleep in any orientation" (S1P2). This could be difficult to cope with because they might float around and disrupt or damage something as they sleep. This could cause major problems if they bump into some of the important software on the ISS or space shuttles. They would have to attach themselfs to something to stop them, from moving, so thats what they did. In paragrapgh 2 again it mentions that they attach themselfs to a wall, a seat, or a bunkbed so they don't float around (S1P2). This would keep them from floating around and causing problems as they sleep. This is very effective because it cost only a little to get hammocks or just a plain old strap to attach themselfs and not cause harm. But that doesn't solve every problem.

While in space it is very hard to keep food fresh or contained to to the lack of gravity and freezers or fridges. The second article has explained that "Mealtime in microgravity usually consists of thermo-stabalized or freeze-dried entrees..." (S2P11). Because they have no cooling devices to keep food fresh, food is often freeze-dried to keep it fresh for long amounts of time. But this only fixes one problem. The passage also explains that in order to keep the weight down and to also keep the food fresh, that they "Thermo-stabalize" food which is basicly canned food but instead of cans they use bags or packages (S2P15). This is extremely heplful because it keeps the food fresh as well as lowering weight. The lower weight could save money because they can spend less when sending rockets becaues of the lower weight, making it more effective in using less fuel.

The next problem to overcome is one that even some humans on Earth have trouble with. Exercise. Source 3 talks about how on the space station they live in microgravity and the effects of not exercising. It states "If astronauts don't exercise, their bodies start losing bone and muscle. Bone and muscle loss mean decreased size and strength, and can reduce an astronauts ability to do work because it makes them weak" (S3P24). This is normally a big problem for humans but because they are living in micro gravity, this problem is increased. If they keep living and not execising in space then their body becomes weak, and their strength is not easily regained. But they have found a solution! Source 3 says that they have created 3 machines that help an astronaut exercise in microgravity, the cycle ergometer, a treadmill, and a resistance exercise device (RED) (S3P28). These machines can help astronauts exercise and not lose strength, and because they are in microgravity, they must strap themselfs down on some of the machines. Exercising is so much of a priority that it comes near sleeping and eating! Astronauts must spend over 2 hours exercising each day (S3P23). This can help increse blood flow and other good things and keep astronauts healthy.

These problems are only a few of the many problems they face as astronauts. They have adapted to these as well and continue to figure out new solutions to the problems in space. One day we may even be able to travel to mars as long as we figure out how to adapt to the new problems we face.

RF-5

3 – Purpose/Structure – Within the range of grade-level performance

- The central idea (*Astronauts have adapted to these challenges in multiple ways. 3 of these challenges are sleeping in one location, the avalibllity of food, and physical problems caused by microgravity*) is focused on the task and is generally maintained throughout.
- There is a logical organizational structure that advances the central idea—the three topics in the introduction are chronologically addressed in the body paragraphs.
- Purposeful transitional strategies (*But despite; In order to; In the first passage; so; again; While; also; Because; The next problem; If; as well; One day)* are used to connect ideas within and among paragraphs.
- Sufficient introduction (adequate set-up leading to the central idea) and conclusion (succinctly adequate) contribute to a sense of completeness.

3 – Development – Within the range of grade-level performance

- Development is logical and demonstrates understanding of the topic.
- Elaboration is adequate, with substantial original writing beyond paraphrase (*This would keep them from floating around and causing problems as they sleep. This is very effective because it cost only a little to get hammocks or just a plain old strap to attach themselves and not cause harm* (body Parag. 1); *This is normally a big problem for humans but because they are living in micro gravity, this problem is increased. If they keep living and not execising in space then their body becomes weak, and their strength is not easily regained* (body Parag. 3)), direct quotations, and examples to support the central idea.
- Relevant evidence (from multiple sources) is adequately integrated and lends credibility to the exposition.
- Evidence is appropriately cited (*S1P2*; *S2P11*; *S3P24*).

3 – Language – Within the range of grade-level performance

- Appropriate academic vocabulary *(cramped; normally; cope with; improvised; multiple; hammocks; plain old strap; extremely; increased; regained; figured out*) is integrated to express ideas clearly.
- The variety in sentence structure here demonstrates grade-appropriate language facility.
- Overall use of grammar demonstrates grade-appropriate command of standard English conventions—even with some errors in usage (*themselfs*; *to* for "due") and spelling (*becaues*; *execising*; *increse*).
- The tone (academic) and voice (*But they have found a solution!* (body Parag. 3) are appropriate for the overall response.

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

3/3/3

Astronauts have very difficult time in space, despite what people may think. While some may say their just a blob of an organisam floating in space, they have a challening time adapting to things that we take for granted back on Earth. Astronauts have to deal with the difficultiy of being in space by dealing with uncomfotable living spaces, Chances of weakend body, and edible food being downgraded.

To begin, one of the difficulties in living in space is with lack of good habitat spaces. ".... on missions with five or more astronauts, the other crewmembers have to sleep in a sleeping bag attached to their seats or to a wall" (Source 1, paragraph 3). This means, astronauts do not have an option they have to be attached to something so they don't float around and bump into things that could cause damage. Having to be attached to something while sleeping creates lack of movenment which leads to lack of comfortability. They might not get their full eight hours of sleep because of their living circumstances. " Sleeping in close quarters can also be disruptive since crewmembers can easily hear each other" (source 1, paragraph 7). Living in a tight space with people while trying to comprimise with their schedual's is extremely difficult. Some sleep later than others and having to change your patterns to get used to their patterns can be hard and might take a while to get used to. There's also a high chance of Astronauts not getting their own sleeping habitis back when they return back home to Earth. Astronauts have a hard time being comfortable in space.

To add on, astronauts food are downgraded to accomadate to living in space. "I'm looking foward to putting food on a plate and eating several things at once, which you can't do up here,...."(source 2, paragraph 2). To explain, after being in space for many months, it would be nice do something ordinary like eating something off a plate and not out of a bag. Many take this "ordinary" things for granted and when time comes that's when they realize. "Many terrestrial recipes especially entrees, are not shelf-stable" (source 2, paragraph 15). In other words, food that we people back on earth can just take out of the fridge and eat, astronauts can't do that. They can only eat "canned" food that also has to be tested to see if it's safe enough for astronauts to eat. They don't get to have the oppurtunity to eat home cooked meal. Astronauts have a hard time in space because they can't eat the foods they want only what is brought to them.

Furthermore, astronauts have more chances of having a weakend body. "If astronauts don't excercise, their bodies start losing bone and muscle" (source 3, paragraph 24). This means, decreased in size, strength and astronauts ablity to do what's at hand. Weakend astronauts wouldn't be able to do their task in space, which isn't good since we rely on them from the information we get from them. If an emergency were to happen we need the them to get out of their as quickly as possible and they can't do that if their not in good shape. "Fluids such as plasma are lost throughout the body" (source 3, paragraph 26). To further explain, plasma is where your red blood cells live. Less plasma means less oxygen flowing through your body. With no gravity and less blood cells astronauts are more proned to life threating medical emergencies. Astronauts have it more difficult because their more prone to weakend body in space and when they return back to Earth.

To conclude, astronauts don't have the easy life that people say they have. In order to give us information they need to do many things to keep their body in check and they have to get used to stuff that we couldn't imagine doing back on Earth. They adapt to weird living spaces, dull/downgraded food, and higher chances of a weak body. Despite completely different habitat spaces the try and give us the information we need to stay safe and continue our lives on Earth.

RF-122

3 – Purpose/Structure – Within the range of grade-level performance

- The central idea (*Astronauts have to deal with the difficulty of being in space by dealing with uncomfortable living spaces, Chances of weakened body, and edible food being downgraded*) is focused on the task and is generally maintained throughout.
- The organizational structure is logical (from the topic of *uncomfortable living spaces*/*lack of good habitat spaces* in the first body paragraph, to that of *edible food being downgraded* in the second body paragraph, to that of *Chances of weakend body* in the third) and allows for the advancement of the central idea.
- Purposeful transitional strategies (*despite; While; To begin; also; To add on; To explain; In other words; Furthermore; With; To conclude; In order to*) connect ideas within and among paragraphs.
- A sufficient introduction (showing control/understanding of the sources) and an adequate conclusion (with original writing tying back to the introduction) contribute to a sense of completeness.

3 – Development – Within the range of grade-level performance

- The development is logical, demonstrating understanding of the topic.
- Elaboration is quite adequate—with text evidence, paraphrasing, and original writing (*Living in a tight space with people while trying to comprimise with their schedual's is extremely difficult. Some sleep later than others and having to change your patterns to get used to their patterns can be hard and might take a while to get used to. There's also a high chance of Astronauts not getting their own sleeping habitis back when they return back home to Earth* (body Parag. 1); *In other words, food that we people back on earth can just take out of the fridge and eat, astronauts can't do that.* […] *They don't get to have the opportunity to eat home cooked meal* (body Parag. 2); *Weakend astronauts wouldn't be able to do their task in space, which isn't good since we rely on them from the information we get from them. If an emergency were to happen we need them to get out of their as quickly as possible and they can't do that if their not in good shape* (body Parag. 3))—in support of the central idea.
- Relevant evidence from multiple sources is integrated, lending credibility to the exposition.
- Evidence is appropriately cited (*(Source 1, paragraph 3)*; *(Source 2, paragraph 15)*).

3 – Language – Within the range of grade-level performance

- Integration of academic vocabulary (*uncomfortable; edible; downgraded; habitat; option; circumstances; compromise; extremely; patterns; accomadate; ordinary; realize; opportunity; Furthermore; life threatening medical emergencies; imagine; completely*) demonstrates clear expression of ideas.
- Sentence structure is varied, demonstrating grade-appropriate language facility.
- Use of grammar demonstrates grade-appropriate command of standard English conventions—even with errors in usage (*their* for "they're"; *astronauts food are*), spelling (*comprimise*; *accomadate*; *oppurtunity*) and capitalization (…*high chance of Astronauts not*…).
- Tone and voice (academic, cautionary but engaging) are appropriate for the overall response.

Grade 08 Writing Q37750 INF

Write an explanatory essay about the adaptations astronauts must make to meet the challenges of being in outer space.

4/4/4

Astronauts need to make vital adaptations to their living routines in order to meet the challenges of being in outer space. They must adapt to the living arrangements in space not only for their jobs, but for their health and safety as well. The unique way of which astronauts have to sleep in space is a good example of an adaptation to their living routines. As well as sleep, their diets and health levels may continue to change and adapt to some of outer space's factors too. Many of the changes that astronauts make to their living arrangements benefit both their jobs and their safety.

Just like on Earth, everybody needs sleep after a long day of work, and though this may be true on Earth and in space, there are some major differences between how this is done. According to the article *"Astronauts Adapting to Space"*, "Because there is no gravity in space, astronauts are weightless and can sleep in any orientation," and while this may seem like a fun experience, there is actually more to the astronauts' safety involved than anything else. While sleeping in space, astronauts have to attach themselves to some sort of stable object whether it is a bed, a seat, or even a wall! The astronauts are required to do this so that they don't float around and bump into anything while they're sleeping. Additionally, the article states that, "Sleeping in the shuttle's cockpit can also be difficult since the Sun rises every 90 minutes during a mission." So because of the change of setting and different factors of space, the adaptation of sleeping in space can disrupt an astronauts sleeping pattern.

Sleep isn't the only critical adaptation that astronauts have to make while living in space, because their menu items change a lot more too. Just as before, because of gravity, astronauts have to make some changes to their food choices as well. According to the article *"Everything You Never Thought to Ask about Astronaut Food"*, "The space station doesn't have refrigerators or freezers to keep food fresh." As a result of this fact, the food that astronauts eat in space are always packaged in disposable pouches and are thermo-stabilized or freeze-dried in order to make sure that the astronauts' food is substainable, lasts for long durations, and is fit for consumption in microgravity. The article also states that, "Despite the unordinary process of eating in space, astronauts can still enjoy a wide variety of about 200 different foods and beverages in space." Like on Earth, astronauts can still have a wide variety of foods to choose from, but it is the way of which it is prepared that is different. Because the food brought to space is thermo-stabilized and/or freeze dried, before consumption, astronauts have to either heat the packages up in an oven or add water to them. According to the article though, "the most difficult foods to prepare for space is anything that creates a lot of crumbs." This is because foods that create crumbs are not only messy, but are also very difficult to deal with if they make it into the air filtration system. Even though astronauts get a wide varied amount of choices for food, they must still be prepared properly before and after consumption.

According to the article *"Your Body in Space: Use It or Lose It"* and Don Hagon, the director or exercise physiology at Johnson Space Center, "Besides eating and sleeping, astronauts spend most of their time exercising because it is the number one health priority in space." The average time that astronauts spend exercising is about two and a half hours and this is because exercise helps build and maintain their bodies' bones and muscles. Astronauts' bones and muscles are very critical to both their own health and jobs because if bone and muscle loss begin in a person's body, then this can lead to decreased size and strength. If this situation were to happen to an astronaut, then their ability to do work would be affected and it would cause them to feel weak as well. Not only would this be an unlikely fate for their job, but it could also affect their safety levels as well because according to the article, "The astronauts would need to be in good shape to get out of the Space Shuttle or Space Station quickly if there were to be an emergency."

Because of the change of setting and the different factors of space, astronauts need to make vital adaptations to their living routines in order to meet the challenges of being in outer space. They must adapt to the living arrangements in space not only for their jobs, but for their health and safety as well. Some of these adaptations will benefit the astronauts for the greater good, while others may disrupt their personal schedules or patterns in life. But no matter what the situation may be, astronauts need to adapt both for their job and for their new life in space.

RF-8

4 – Purpose/Structure – Above grade-level accomplishment demonstrated

- The central idea (*Astronauts need to make vital adaptations to their living routines in order to meet the challenges of being in outer space. They must adapt to the living arrangements in space not only for their jobs, but for their health and safety as well*) is focused on the task and is consistently maintained throughout.
- The organizational structure (making the theme of *both their jobs and their safety* run through the topics of *sleep*, *food* and *exercise* in the body paragraphs) strengthens the response and advances the central idea.
- Purposeful transitional strategies (*not only; but; As well as; Just like; though; While; Additionally; So; Just as before; As a result of this fact; also; Like on earth; Even though; If; Not Only; Because of*) are used to connect ideas within and among paragraphs, which creates cohesion.
- Effective introduction (showing clear understanding of the task and assimilation of the sources) and conclusion (reinforcing the introduction and body paragraphs) enhance the essay.

4 – Development – Above grade-level accomplishment demonstrated

- The response is skillfully developed, demonstrating a thorough understanding of the topic.
- An effective elaboration—combining substantial original writing with paraphrase (… *while this may seem like a fun experience, there is actually more to the astronauts' safety involved than anything else. While sleeping in space, astronauts have to attach themselves to some sort of stable object whether it is a bed, a seat, or even a wall. The astronauts are required to do this so that they don't float around and bump into anything while they're sleeping* (body Parag. 1); *Astronauts' bones and muscles are very critical to both their own health and jobs because if bone and muscle loss begin in a person's body, then this can lead to decreased size and strength. If this situation were to happen to an astronaut, then their ability to do work would be affected and it would cause them to feel weak as well. Not only would this be an unlikely fate for their job, but it could also affect their safety levels as well* (body Parag. 3)), text evidence, and rhetorical techniques—is used to support the central idea.
- Relevant evidence from multiple sources is smoothly integrated, lending credibility to the exposition.
- Evidence is appropriately cited (*According to the article "Everything You Never Thought to Ask About Astronaut Food"*).

4 – Language – Above grade-level accomplishment demonstrated

- The integration of academic vocabulary *(vital; routines; arrangements; diets; unique; factors; stable; required; critical; consumption; average; maintain; decreased; unlikely; benefit; greater; schedules; patterns)* strengthens and furthers ideas in this essay.
- The skillful use of varied sentence structures in this essay contributes to the fluidity of ideas.
- The use of standard English grammar demonstrates consistent command of the communication of ideas.
- The tone (engaging, professional) and voice used here strengthen the overall response.

A-15

Grade 08 Writing Q37750 INF

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

4/4/4

In recent years, mankind has begun to reach into the heavens, and explore the space around us. As missions into space become more ambitious, the question remains: what adaptations must astronauts make? The human body was not designed to travel beyond Earth's gravity, and doing so presents a number of challenges. Adaptations that astronauts must make to meet the challenges of space travel include altered sleep conditions, different eating experiences, and frequent exercise.

One of the key adaptations for astronauts on long voyages is sleeping in microgravity. Sleep is vital to the health of the human body. In space, however, conditions are quite different than those on Earth, and sleeping is as well. As stated in the article "Space Sleep" by NASA, "In space... astronauts are weightless and can sleep in any orientation. However, they have to attach themselves to a wall, a seat or a bunk bed inside the crew cabin" (NASA 2). Without the gravity of Earth, astronauts in space simply float around. When sleeping, they are not in control of this floating, and could easily run into something, hurting themselves and possibly sensitive equipment. To combat this problem, astronauts usually sleep in sleeping bags, which can be attached to a seat or wall. With these sleeping bags, astronauts can sleep almost anywhere, so long as they are attached to something. However, there are also other problems to sleeping in space. NASA says in the same article that, "The excitement of being in space and motion sickness can disrupt an astronaut's sleep pattern. Sleeping in close quarters can also be disrupive since crewmembers can easily hear each other. Sleeping in the shuttle's cockpit can also be difficult since the Sun rises every 90 minutes during a mission" (NASA 7). There are many factors which can disrupt the sleep of an astronaut, and they must all be adapted to. For example, sleep masks can be used to combat the Sun's frequent rising during shuttle missions. On board the International Space Station, two crew cabins help separate the crew into their own rooms, so that they do not disturb each other. Despite these problems, astronauts are still able to spend days and months at a time in space, and many aspects of space sleep are quite similar to those on Earth. It is important for astronauts to learn how to sleep comfortably in space, and adapt to the challenges it presets.

Another unusual aspect of space travel that astronauts must adapt to is eating in microgravity. Eating in space is quite different from eating on Earth, as explained by Marina Koren in the article "Everything You Never Thought to Ask About Astronaut Food." "Mealtime in microgravity usually consists of thermo-stabilized or freeze-dried entrees and snacks in disposable packages and pouches. Astronauts heat them up in an oven or add water before chowing down with a fork straight out of the package" (Koren 3). Many of the foods astronauts eat in space are similar to meals they would have at home, but most of the foods are made in laboratories and are tested to ensure it can last for two years without being opened, and is suitable for the astronauts to eat. This process can take quite a long time, from months to entire years. Many recipies on Earth must be refrigerated after being prepared. In order for food to be edible in space, foods are frozen or placed in special pouches. Despite the unusual preparation and consumption of these meals, reports are mixed as to whether microgravity affects taste. According to Koren, "There is no scientific evidence that microgravity alters the taste of food. There is anecdotal evidence from crew members that they feel like their taste buds are somewhat dulled in orbit. Other crew members say it's all in their head and there is no difference" (Koren 9). Koren goes on to state that crew members are likely getting less aroma, or scent, from the food than they normally would on Earth. Smell is a vital part of the eating experience. Getting less of it is perhaps what makes the food taste a bit different to some, but it seems that some people can adapt, and not be quite as affected by it. Eating in space is an interesting challenge, and one that astronauts must overcome if they are to make extended trips off the planet.

The last and perhaps most important adaptation of all is exercise in microgravity. The human body was meant to be within the garvity of Earth, and it undergoes concerning changes in space. In NASA's article "Your Body in Space: Use It ot Lose It," it is said that "If astronauts don't exercise, their bodies start losing bone and muscle. Bone and muscle loss mean decreased size and strength, and can reduce an astronaut's ability to do work" (NASA 3). Losing bone and muscle not only makes astronauts weak and less capable of doing work, but it affects them back on Earth as well. When exposed to Earth's gravity, astronauts that have experienced these losses could find walking difficult. Additionally, while lost muscle can be regained in therapy, lost bone is much harder to replace. Exercising while in space helps to stop these problems before they start. However, loss of bone and muscle is not the only problem astronauts face without exercise. NASA states in the same article that "In microgravity, body fluids are moved around. Fluids such as plasma are lost throughout the body. Plasma is where red blood cells live. Less plasma means there is less blood to carry oxygen to the rest of the body" (NASA 5). Without this plasma, astronauts would not have as effective circulation, which could lead to fainting. Exercise helps to build plasma back up, increase circulation, and prevent fainting. This keeps the astronauts safe, as fainting in microgravity can lead to an unfortunate astronaut running into something and hurting themselves, or fainting during and emergency and jeapordizing the mission. Exercise is a vital part of adapting to space travel, and without it astronauts would be dangerously weak.

In space, astronauts must make several adaptations, including new sleeping circumstances, altered meals, and frequent exercise in order to undertake long voyages. Without these adaptations, astronauts could not possibly hope to last for very long in space. By overcoming these challenges, astronauts allow us to continue our dreams of exploring the stars. As our race prepares to undertake more and more daring space missions, it is up to our brave astronauts to adapt to ever-changing circumstances.

RF-17

4 – Purpose/Structure – Above grade-level accomplishment demonstrated

- The central idea (*Adaptations that astronauts must make to meet the challenges of space travel include altered sleep conditions, different eating experiences, and frequent exercise*) is focused on the task and is consistently maintained throughout.
- The organizational structure (chronologically addressing the three points in the body paragraphs) strengthens the response and advances the central idea.
- Purposeful transitional strategies (*In recent years; As; One of; however; Without; When; For example; Despite; Another; but; The last; Additionally; In space; By)* connect ideas throughout the essay and create cohesion.
- Effective introduction (with a skillful, creative lead-in to the central idea) and conclusion (with creative quality similar to that of the introduction) enhance the essay.

4 – Development – Above grade-level accomplishment demonstrated

- Thorough understanding of the topic is demonstrated through skillful development.
- Effective elaboration is illustrated by substantial original writing (layered analysis—*Koren goes on to state that crew members are likely getting less aroma, or scent, from the food than they normally would on Earth. Smell is a vital part of the eating experience. Getting less of it is perhaps what makes the food taste a bit different to some, but it seems that some people can adapt, and not be quite as affected by it. Eating in space is an interesting challenge, and one that astronauts must overcome if they are to make extended trips off the planet* (body Parag. 2)), purposeful paraphrase (*Without the gravity of Earth, astronauts in space simply float around. When sleeping, they are not in control of this floating, and could easily run into something, hurting themselves and possibly sensitive equipment. To combat this problem, astronauts usually sleep in sleeping bags, which can be attached to a seat or wall* (body Parag. 1)), text evidence, examples, and narrative techniques in support of the central idea.
- Relevant evidence from multiple sources is smoothly integrated to lend credibility to the exposition.
- Evidence is appropriately cited (*"Space Sleep" by NASA*).

4 – Language – Above grade-level accomplishment demonstrated

- Academic vocabulary *(mankind; reach into the heavens; ambitious; altered; vital; sensitive; combat; comfortably; unusual; ensure; suitable; undergoes; concerning; effective; dangerously; circumstances; undertake; exploring; daring; brave; jeopardizing; voyages; overcoming; ever-changing)* is integrated throughout to strengthen and further the ideas in the essay.
- Varied sentence structure is skillfully used and contributes to the fluidity of ideas.
- Use of standard English grammar demonstrates consistent command of the communication of ideas.
- The tone (academic, professional, engaging and personalized—*astronauts allow <u>us</u> to continue <u>our</u> dreams of exploring the stars. As <u>our</u> race prepares to undertake more and more daring space missions, it is up to <u>our</u> brave astronauts to adapt to ever-changing circumstances* (ending of the Conclusion)) and voice used strengthen the overall response.

A-16

Grade 08 Writing Q37750 EXP

Write an expository essay about the adaptations astronauts must make to meet the challenges of being in outer space.

4/4/4

Outer space is, quite literally, out of this world. Many kids dream of becoming astronauts and making it to space one day, to float around and watch our plant from the outside. As exciting as this thought may be, going into zero gravity is much harder than one might be led to believe. Gravity is very natural to us as something that dictated how we evolved as a species, so many changes much be made to one's every day life to deal with the lack of it. Some of these changes made to face the challenges of space include sleeping and eating differently, as well as having to exersize much more often.

To begin, sleeping becomes a much more complicated task when there isn't a force to pin someone down to a bed. In space where there is no gravity, one simply can't just fall asleep without proper preperations. In the text, "Space Sleep" written by NASA, it is written that crew, "have to attach themselves to a wall ... so they don't float around and bump into something" further saying that they, "usually sleep in sleeping bags" (par. 2-3). If one were to fall asleep without attaching themselves to something, then they would float around the space station and be at the mercy of their movements while sleeping. For someone who moves a lot in their sleep, this would most likely lead to injury as they would hit something in the space station. As the station is in zero gravity, even the smallest movements could send one in any direction, until they either exert force to move in the opposite direction or hit something and are forced to stop. However, needing to be strapped to the floor or wall in sleeping bags isn't the only problem that can come with sleeping in space. In the same text, NASA writes, "motion sickness can disrupt an astronaut's sleep pattern" and that sleeping the the cockpit can be hard due to the sun rising every 90 minutes (par. 7). Someone that is not used to the conditions of space can feel motion sick due to the absence of gravity, as they aren't being held down anymore by anything other than the straps they use to keep themselves from floating away. The sun rising and falling can also lead to strange sleeping schedules, and can mess up your natural instinct of when to fall asleep, as sunlight plays a large role in this. Generally, we want to be up when the sun is up, and we get tired when it is down. Without the normal rising and setting of the sun, one could have to use artificial light to simulate this process, though an astronaut who sleeps in the cockpit, where there is not an enclosed area, would not be able to control this. Therefore, methods and ways that astronauts sleep are different due to the nature of being in space.

Continually, astronauts who are in space must also alter how they eat because of the lack of gravity. This absence causes everything not secured to float around, as stated in "Everything you Never Thought to Ask about Astronaut Food" where Marina Koren writes that on the International Space Station, "... food--along with everything else--floats" (par. 11). On Earth, gravity is what causes food to stay on a plate, and be able to be picked up. Similarly, this is what causes water to stay in a cup. In space, however, this is not the case. Food floats around freely and can cause a huge mess. With water, it becomes a sphere held together by the attraction between water molecules. As one would imagine, this can be quite messy and especially bad in a place with expensive research equipment such as the ISS. To combat this, most regular freshly-made food cannot be eaten in space. Marina Koren goes on to write that her team must, "... convert standard recipes into shelf-stable foods through freeze-drying and thermo-stabilization" (par. 15). While some foods can be eaten as they are, most must be dried, meaning that all the water is taken out of the food. The water is added back by the astronaut before eating. This allows the food to stay good rather than go bad at the station. This is still not the same as a freshly cooked meal, but tastes similar and still provides nutrients. Koren writes that the food can't be eaten on a plate, so pouches are used leading to a decrease in aroma that the astronauts get (par. 17). Since smell is a huge factor in taste, and it is hard to smell food with the pouches, the food will seem to taste different despite being very similar. Whatever the reasons, food is simply not the same in space as it is on Earth, with eating being another thing one must modify to live in space.

Moreover, the amount of exersize one does in space must be increased enormously to account for not having a gravitational force. In the text, "Your Body in Space: Use It or Lose It" NASA explains that, "If astronauts don't exersize, their bodies start losing bone and muscle ... [making] them weak" (par 24). Astronauts have many responsibilities in space, as they are sent to do research and are also made to go on space walks. These activities are demanding on the astronaut, and they need to have strength to complete them. Without gravity, the body doesn't need to use much energy at all to stand, move around, and push things, making exersize very important. NASA states that, "Fluids such as plasma are lost ... less plasma means there is less blood to carry oxygen" also saying that exersize can increase plasma amounts, leading to more red blood cells (par. 26). Oxygen is crucial to keep the body functioning, and lacking it can result in an astronut fainting more often or feeling like they don't have energy. Another reason that exersize is so important is because an astronaut's body cannot degrade too much in space as they must come back to Earth eventually. This means their body has to be able to deal with the sudden transition back to gravity, so they must keep in shape. Transitioning back to living on Earth is already a tough thing to do, so keeping fit just makes it that much easier to do. In order to exersize in space, one must use special machines, since normal ones on Earth can prove to be ineffective. NASA again writes that astronauts use machines like the, "Cycle Ergometer" similar to a bike, the "treadmill" with harnesses attached to hold the person down, and the "Resistance Exercise Device (RED)" that uses pulleys and elastic force to give a "total body workout" (par. 28). These machines work in space as other forces that are not gravity are used to make the astronaut exert effort. A regular pull up bar, for example, is entirely ineffective in space as it would be effortless for one to pull on the bar slightly and float up. Elasitc force, however, is entirely dependent on the material and the force exterted on it, allowing for the RED to work in outer space. In summary, exersize is one of the many challenges that astronauts must face in space, needing to do it much more often and having to use special machines.

All in all, many alterations to lifestyle must be made in order for someone to overcome the hardships of living in space. These include extra prep and challenges with sleeping and eating, as well as a need to exersize much more than one would normally, all due to the absence of gravity, along with other factors. Life in outer space is exciting, there is no dobut, but it doesn't come without its struggles. It's important for us to recognize how hard astronauts work to provide us with research and new information about space. Perhaps even those who wish to become astronauts can be motivated to work their hardest to achieve their goals, now knowing the things they must prepare for.

RF-91

4 – Purpose/Structure – Above grade-level accomplishment demonstrated

- The central idea (… *Some of these changes made to face the challenges of space include sleeping and eating differently, as well as having to exersize much more often*) is focused on the task and is consistently maintained throughout.
- The organizational structure strengthens the response as it advances the central idea.
- Purposeful transitional strategies (*As…as; so; To begin; In space; If, then; For; However; Generally; Without; though; Therefore; Continually; On Earth; Similarly; To combat this; While; Since; Whatever the reasons; Moreover; Another; for example; In summary; All in all; but; Perhaps even*) connect ideas within and among paragraphs and create cohesion.
- Effective (succinct and original) introduction and conclusion enhance the essay.

4 – Development – Above grade-level accomplishment demonstrated

- Skillful development demonstrates thorough understanding of the topic.
- The elaboration is effective: relevant evidence, purposeful paraphrasing, original writing—using examples and showing layered analysis (*If one were to fall asleep without attaching themselves to something, then they would float around the space station and be at the mercy of their movements while sleeping. For someone who moves a lot in their sleep, this would most likely lead to injury as they would hit something in the space station. As the station is in zero gravity, even the smallest movements could send one in any direction, until they either exert force to move in the opposite direction or hit something and are forced to stop* […] *Generally, we want to be up when the sun is up, and we get tired when it is down. Without the normal rising and setting of the sun, one could have to use artificial light to simulate this process, though an astronaut who sleeps in the cockpit, where there is not an enclosed area, would not be able to control this. Therefore, methods and ways that astronauts sleep are different due to the nature of being in space* (body Parag. 1))—are all appropriate in supporting the central idea.
- Relevant evidence from multiple sources is smoothly integrated to lend credibility to the exposition.
- Evidence is appropriately cited (*"Space Sleep" written by NASA*; *(par.7)*).

4 – Language – Above grade-level accomplishment demonstrated

- Integration of academic vocabulary (*quite literally; exciting; dictated how we evolved as species; complicated; at the mercy of their movements; exert; instinct; artificial; simulate; process; enclosed; methods; sphere; especially; to combat; provides; factor; enormously; account for; gravitational force; responsibilities; demanding; crucial; degrade; eventually; transition back;, ineffective; effortless; Elastic force; entirely; alterations to lifestyle; hardships*) strengthens and furthers ideas.
- Skillful use of varied sentence structure contributes to fluidity of ideas.
- Use of standard English grammar clearly demonstrates consistent command of the communication of ideas.
- Tone (confident/authoritative throughout) and voice (*Space is, quite literally, out of this world*. (Introduction); *It's important for us to recognize how hard astronauts work to provide us with research and new information about space* (ending of Conclusion)) strengthen the overall response.