

11th – 12th grade • English Level 3

LEARNING PACKET #1



Theme: Sleep

International Consortium for Multilingual Excellence in Education



August 15th, 2020

Dear District/School Personnel:

We are a consortium of researchers, teacher educators, and teachers who believe in and strive to foster multilingual excellence. Therefore, during this time of crisis and difficulty, we are eager to put our expertise and passions to use to try to be of assistance. We initially designed 21 immediate-response packets for K-5, as soon as the pandemic forced schools to shut down. We then applied for and received a grant that has allowed us to create more than 100 full activity packets, ranging from Levels 1-3 of English proficiency, and grades K-12.

The breakdown of packets is as follows:

Level 1 – Entry into English

Emphasis on developmentally appropriate interesting/challenging tasks

- K-2
- 3-5
- 6-8 with a literacy background
- 9-12 with a literacy background
- 6-8 without literacy background
- 9-12 without literacy background

Level 2 – Building Background

- K-1
- 2-3
- 4-5
- 6
- 7-8
- 9-10
- 11-12

Level 3 – Interdisciplinary Inquiry

- K-1
- 2-3
- 4-5
- 6
- 7-8
- 9-10
- 11-12

With this letter, is an “Activity Packet” that can be used freely with any group of students or families as you see fit. Each packet includes interdisciplinary activities designed to be completed within a week. Teachers from around the country have designed, developed, and created these packets, each focusing on the topics of their choice. Because learning academic content can happen within any thematic context, these packets are designed to be diverse, dynamic, and engaging for students of all backgrounds. The topics covered in these units range from cultures, animals, natural disasters, inventions, and much more. You will see each teacher’s personality reflected strongly in these packets, and our hope is that this will capture students in a way similar to that of a rich and immersive classroom environment.

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Our hope is that these materials can provide some meaningful learning supports to students and families who may not have access to online learning opportunities. However, we can also imagine a variety of ways that these packets can provide learning opportunities outside of our original intent and purpose. Please use these activity packets in any way you see fit for your students and families. We will be so pleased to learn of how they might be useful, particularly for your multilingual students and their families. We think it might be particularly helpful for you to print packets and mail them to families, but we also see opportunities to work with local agencies, leave printed-out packets for pick-ups at schools, etc.

We designed these activities based around several big ideas:

- Productive play and inquiry
- Grade level and English Language Development standards/curriculum
- Fostering multilingual language development
- Providing opportunity for all four language domains (reading, writing, speaking and listening)

These packets are self-contained. Everything a child will need to be successful with the activities is provided in the packet. Students will only need a writing utensil. Additional tools like crayons or scissors are optional.

We have also included a letter to parents. We hope this will help parents understand what students will be doing with the packet and that we encourage the use of all language resources available to the student. The packets are in English for the students, but the students can write, talk and engage with family members regarding the packet activities in any language they would like. We have translated the parent letter into Spanish, and we encourage districts to translate the letter into any other language that would be helpful for your local families.

Designing Activity Packets is a new initiative for us, though we have been designing professional learning opportunities (eWorkshops) for teachers of multilingual learners since 2011. Like our Activity Packets, those learning opportunities for teachers are free. To learn more about them and us, please visit our website at: <https://cehs.unl.edu/icmee/>

We are eager to be a helpful, collaborative partner in all learning needs related to multilingual students and their teachers, so please, do not hesitate to reach out to us with questions, ideas, concerns, feedback, etc. We are available at icmee@unl.edu.

Sincerely,

Kara Mitchell Viesca, PhD

Associate Professor of Language Education

University of Nebraska Lincoln

Teaching, Learning and Teacher Education

PI: International Consortium for Multilingual Excellence in Education

This packet was designed and created by **Katie Loughrist** in collaboration with Lauren Gatti and Alexa Yunes.



The Standards that Informed the Development of this Packet are:

Math

- **CCSS.MATH.CONTENT.HSA.SSE.A.1.A**
Interpret parts of an expression, such as terms, factors, and coefficients.
- **CCSS.MATH.CONTENT.HSA.REI.A.1**
Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

English Language Arts

- **CCSS.ELA-LITERACY.L.11-12.1**
Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **CCSS.ELA-LITERACY.L.11-12.2**
Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- **CCSS.ELA-LITERACY.W.11-12.2**
Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, or organization, and analysis of content
- **CCSS.ELA-LITERACY.L.11-12.4.B**
Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., *conceive, conception, conceivable*)
- **CCSS.ELA-LITERACY.L.11-12.4.C**
Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage.
- **CCSS.ELA-LITERACY.L.11-12.6**
Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- **CCSS.ELA-LITERACY.RI.11-12.5**
Determine an author’s point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.
- **CCSS.ELA-LITERACY.L.11-12.4.A**
Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase
- **CCSS.ELA-LITERACY.SL.11-12.6**
Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.
- **CCSS.ELA-LITERACY.RL.11-12.1**
Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
- **CCSS.ELA-LITERACY.RL.11-12.2**
Determine two or more themes or central ideas of a text and analyze their development over the course of

the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text

- **CCSS.ELA-LITERACY.RL.11-12.4**
Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful.
- **CCSS.ELA-LITERACY.RL.11-12.6**
Analyze a case in which grasping a point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement)
- **CCSS.ELA-LITERACY.W.11-12.2.D**
Use precise language, domain-specific vocabulary and objective tone while attending the norms and conventions of the discipline in which they are writing.
- **CCSS.ELA-LITERACY.W.11-12.4**
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- **CCSS.ELA-LITERACY.W.11-12.9**
Draw evidence from literary or informational texts to support analysis, reflection, and research.

Science & Technical Subjects (ELA)

- **CCSS.ELA-LITERACY.RST.11-12.1**
Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- **CCSS.ELA-LITERACY.RST.11-12.6**
Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unsolved.

Art

- **FA 12.2.4.a**
Investigate how artists define, shape, and empower their lives (e.g., personal life, lifelong opportunities, careers).
- **FA 12.2.4.b**
Analyze and interpret works of art from a variety of contemporary, historical, cultural contexts, time periods, and cultural settings.
- **FA 12.2.4.d**
Connect images, objects, and a personal work of art to convey a story, familiar experience, or connection to the world.

Physical Education

- **PE.HS.5.2a**
Identifies and implements components of an appropriate effective strength and conditioning program
- **PE.HS.5.2b**
Identifies and uses the major muscle groups in specific exercises
- **PE.HS.5.2c**
Applies the terminology associated with exercise and participation in beginning strength and conditioning activities

11th – 12th grade • English Level 3

LEARNING PACKET



International Consortium for Multilingual Excellence in Education



August 15th, 2020

Dear Families:

During the COVID-19 pandemic, it became necessary for students to learn at home. Many students have limited access to technology, others struggle with online learning, and some simply want more to do while they are at home. With these things in mind, we have created an extensive resource of learning materials that we hope will be helpful for your children to engage with. These Activity Packets were designed with your students in mind and are aligned with each of their grade level content. Each activity in the packets will help students continue with their schooling as well as continue to grow their multilingualism. We encourage you to talk to your student about what they are doing and let your child ask you about the topics they are learning about. The packet is in English, but we encourage you and your children to speak and think together in any language you would like to. We strongly encourage you to use the language you feel most comfortable using with your student. Supporting their learning in all the languages they know is helpful—even for developing their English! So, please encourage your student to do the work in the packet in any language they would like.

We know that families are dealing with a lot of stress and uncertainty right now, so we encourage you to play the role you would like to play with your student and their Activity Packet based on what works best for you. We recommend reading the information about the packet and activities and then discussing with your student how the packet works and how they can work through it. We believe that with that introduction, your student can do a lot, if not all, of the work themselves. However, if you are available to work more closely with your student (or for a sibling or other family member to do so), we encourage that as well. Please know, this is not intended to be something that adds stress and work to your family during this demanding time. We hope that this is a helpful resource so your student can continue growing academically while in unusual situations.

We also hope you will find these packets interesting and fun. We have integrated activities from all of the grade level content standards: English Language Arts, Mathematics, Social Studies, Science, Physical Education and Art. We have also developed different packets for the different levels of English proficiency, so your child should feel challenged but also capable of largely understanding the content in front of them.

6th-12th grade students are encouraged to talk about their learning as much as possible, even if it is not to one person in particular. Some packets will include activities where students can “use a cell phone” to record voice messages and post on social media, which we hope might be ways in which they can be encouraged to speak in English or in any language they prefer.

In this packet, you will find:

1. **Table of Contents:** This will provide you with a general pacing guide to help your student stay on track.
2. **Topic Warm-Up SLEEP:** Your student will brainstorm to determine what they already know about the topic. They will use the information they collect to guide them in their learning as they are exposed to new content.
3. **Topic Vocabulary & Memory Game:** This activity includes a glossary with many of the terms they will encounter in the packet. It includes the word, definition, an instructional image, and a space for them to write how they will remember the word. Students will then cut out cards in order to play a studying game called “Memory.” Feel free to play a round with your student

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4. **Scientific Article: Why Sleep?** This activity exposes your student to an academic scientific text related to the packet topic. Your student will work to understand the details of the text, make inferences, and apply what they have learned to the real examples and their own lives.
5. **Algebra: $X = \text{Sleep}$:** This activity explains in simplified English how to solve an equation using PEMDAS, an algebraic term that helps students remember the order they should do the steps in. The language of math can sometimes be difficult, so this activity is designed to help your student understand the terminology involved in equations and how to solve the math problems themselves.
6. **PE: Exercises to Help You Sleep:** This activity first teaches your students the best exercises to aid in better sleep, including cardio, strength training, and yoga. Your student will focus on strength training throughout this packet. The exercise instructions are only listed in one place, but please encourage your student to engage in the exercises each and every day. They are only beneficial when they are done repeatedly on a daily schedule.
7. **Language Arts: Figurative Language & Music:** This activity focus on the use of figurative language (similes and metaphors) in poetry and fiction. Students will read the lyrics of a hip-hop song and make inferences about the artist's intent in using that specific language. They will write an analysis identifying what they think the song means.
8. **Art: Dreams & Desires through the Mandala:** This activity first explains how art can aid in rest, relaxation, and a healthier mind and body. It then introduces a traditional art form in Hindu and Buddhist cultures called the mandala. Your student will learn about the basic features of a mandala and based on that knowledge, create a mandala of their own.
Includes 1 BLANK PAGE at the end for your student to draw their artwork on.
9. **Reflection:** This activity asks your student to reflect on everything they have learned in the packet and apply it to their own lives. This would be a great opportunity for you to sit with your student and ask them to go through each activity of the packet with you and explain what they learned and how it has changed their opinions or perceptions.

NOTE: Answer sheets are at the **end of the packet**, so your student will have easy access.
If you do not want your student to have answer sheets, remove them from the packet before giving it to them.

We hope that these activities will enhance your child's learning while we work through these very unusual circumstances. We also hope that they will give your child opportunities for productive play. If you have any questions or concerns about these packets, feel free to reach out to our project at icmee@unl.edu or by calling the Teaching, Learning and Teacher Education department at 402-472-2231.

Sincerely,

Kara Mitchell Viesca, PhD
Associate Professor of Language Education
University of Nebraska Lincoln
Teaching, Learning and Teacher Education
PI: International Consortium for Multilingual Excellence in Education

This packet was designed and created by **Katie Loughrist**
in collaboration with Lauren Gatti and Alexa Yunes.

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Queridas familias:

15 de agosto del 2020

Durante la pandemia del COVID-19, ha sido necesario que los estudiantes aprendan en casa. Muchos de los estudiantes tienen acceso limitado a la tecnología, otros tienen dificultad para aprender en línea y algunos simplemente quieren tener algo más que hacer mientras están en casa. Pensando en estas razones, hemos creado un recurso con una gran extensión de materiales de aprendizaje que esperamos serán útiles para que sus hijos participen activamente. Estos paquetes de aprendizaje fueron diseñados teniendo en mente a sus niños y están alineados a los contenidos de cada nivel de grado. Cada actividad en estos paquetes los ayudará a continuar con su escolarización, así como a seguir aumentando su multilingüismo. Lo alentamos a que hable con su estudiante sobre lo que está haciendo y deje que le pregunte sobre los temas que le interesan. El paquete está en inglés, pero le recomendamos a usted y a su estudiante que hablen y piensen juntos en el idioma que deseen. Le recomendamos encarecidamente que use el idioma con el que se sienta más cómodo al comunicarse con su estudiante, ya que respaldar su aprendizaje en todos los idiomas que sabe es útil, ¡incluso para su inglés! Por lo tanto, anime a su estudiante a hacer el trabajo en el paquete en cualquier idioma que desee.

Sabemos que las familias están lidiando con mucho estrés e incertidumbre en este momento, por lo que lo alentamos a que desempeñe el papel que le gustaría desempeñar con su estudiante y su paquete de actividades según lo que funcione mejor para usted. Le recomendamos leer la información sobre el paquete y las actividades que contiene y luego discutir con su estudiante cómo funciona el paquete y cómo pueden trabajar en él. Creemos que, con esa introducción, su estudiante puede hacer mucho, si no todo, el trabajo por sí mismo. Sin embargo, si usted está disponible para trabajar más estrechamente con su estudiante (o un hermano u otro miembro de la familia), también lo recomendamos. Por favor, tenga en cuenta que esto no pretende ser algo que agregue estrés y trabajo a su familia durante este momento tan desgastante. Por el contrario, esperamos que este sea un recurso útil para que su estudiante pueda continuar desarrollándose académicamente durante esta situación tan inusual.

También esperamos que ustedes encontrarán estos paquetes interesantes y divertidos. Hemos integrado actividades de todos los estándares de contenido de nivel de grado: Artes del Lenguaje en inglés, Matemáticas, Estudios Sociales, Ciencias, Educación Física y Arte. También hemos desarrollado diferentes paquetes para los diferentes niveles de dominio del inglés, de esta manera su hijo podrá sentir el desafío y también será capaz de comprender en gran medida el contenido que se les presenta.

Los estudiantes de 6to a 12avo grado son motivados a hablar sobre su aprendizaje tanto como sea posible, aun cuando no sea a una persona en particular. Algunos paquetes incluirán actividades en donde los estudiantes pueden “usar un teléfono celular” para grabar mensajes de voz y subirlos a las redes sociales; esperamos que estas sean formas que los animarán a hablar en inglés o en el idioma de su preferencia.

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En este paquete encontrará:

- Tabla de contenido: Esto le proporcionará una guía general para ayudar a su estudiante a planificar su tiempo.
- Preparación para el tema SUEÑO: Su estudiante hará una lluvia de ideas para determinar lo que ya sabe sobre el tema. Utilizará la información que recopila para guiarlo en su aprendizaje a medida que se expone a nuevos contenidos.
- Vocabulario temático y juego de memoria: Esta actividad incluye un glosario con muchos de los términos que encontrarán en el paquete. Incluye la palabra, la definición, una imagen de instrucción y un espacio para que escriban cómo recordarán la palabra. Luego, los estudiantes recortarán tarjetas para jugar un juego de estudio llamado "Memoria". ¡Siéntase libre de jugar una ronda con su estudiante!
- Artículo científico - ¿Por qué dormir?: Esta actividad expone a su estudiante a un texto científico académico relacionado con el tema del paquete. Su estudiante trabajará para comprender los detalles del texto, hacer inferencias y aplicar lo que ha aprendido a los ejemplos reales y sus propias vidas.
- Álgebra: $X = \text{Dormir}$: Esta actividad explica en inglés simplificado cómo resolver una ecuación usando PEMDAS, un término algebraico que ayuda a los estudiantes a recordar el orden en que deben hacer los pasos. El lenguaje de las matemáticas a veces puede ser difícil, por lo que esta actividad está diseñada para ayudar a su estudiante a comprender la terminología involucrada en las ecuaciones y cómo resolver los problemas matemáticos por sí mismo
- Educación física - Ejercicios para ayudarlo a dormir: Esta actividad primero enseña a su estudiante los mejores ejercicios para ayudarlo a dormir mejor, incluyendo cardio, entrenamiento de fuerza y yoga. Su estudiante se centrará en el entrenamiento de fuerza a lo largo de este paquete. Las instrucciones de los ejercicios solo se enumeran en un lugar, pero aliente a su estudiante a participar en los ejercicios todos los días. Solo son beneficiosos cuando se hacen repetidamente en un horario diario.
- Artes del lenguaje- Lenguaje figurativo y música: Esta actividad se centra en el uso del lenguaje figurativo (símbolos y metáforas) en poesía y ficción. Los estudiantes leerán la letra de una canción de hip-hop y harán inferencias sobre la intención del artista al usar ese lenguaje específico. Escribirán un análisis identificando lo que creen que significa la canción.
- Arte: sueños y deseos a través del mandala: Esta actividad explica primero cómo el arte puede ayudar en el descanso, la relajación y una mente y un cuerpo más saludable. Luego introduce una forma de arte tradicional en las culturas hindú y budista llamada mandala. Su estudiante aprenderá sobre las características básicas de un mandala y, basándose en ese conocimiento, creará su propio mandala.
- Incluye 1 PÁGINA EN BLANCO al final para que su estudiante dibuje su obra de arte.
- Reflexión: Esta actividad le pide a su estudiante que reflexione sobre todo lo que ha aprendido en el paquete y lo aplique a sus propias vidas. Esta sería una gran oportunidad para que se sienta con su estudiante y les pida que repasen cada actividad del paquete con usted y le expliquen lo que aprendieron y cómo ha cambiado sus opiniones o percepciones.

NOTA: Las hojas de respuestas se encuentran al final del paquete, por lo que su estudiante tendrá fácil acceso. Si no desea que su estudiante tenga hojas de respuestas, retirelas del paquete antes de dárselas.

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Esperamos que estas actividades mejoren el aprendizaje de su hijo mientras trabajamos juntos para atravesar estas circunstancias tan inusuales. También esperamos que le darán a su hijo oportunidades de juego productivo. Si tiene alguna pregunta o inquietud acerca de estos paquetes, siéntase en libertad de comunicarse con nuestro proyecto a icmee@unl.edu o llamando al departamento de Enseñanza, Aprendizaje y Educación para maestras (Teaching, Learning, and Teacher Education) al 402-472-2231.

Sinceramente,

Kara Mitchell Viesca, PhD

Associate Professor of Language Education

University of Nebraska Lincoln

Teaching, Learning and Teacher Education

PI: International Consortium for Multilingual Excellence in Education



Share your learning!

Share a picture of any of your work by using **#MultilingualProud** on social media.

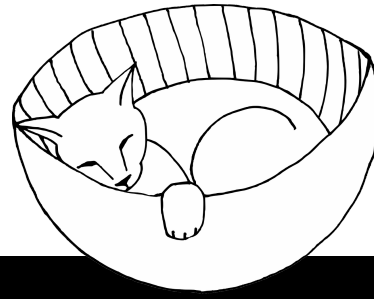
We'd love to see what you've done with this packet!



Packet 1: Sleep

Table of Contents

What will you find in this packet?



Suggested Schedule


	Lesson	Activities	Description
1 Week	Lesson 1	Accessing Prior Knowledge	Introduction to the topic: What do you already know about it? Brainstorm and write your ideas; this gets your brain ready to learn new information!
		Vocabulary Preview & Game	Learn the key (important) vocabulary about the topic. You will see these words used throughout the packet! Play a game called "Memory" to practice and have fun!
	Lesson 2	Why Sleep?	Read the scientific text and answer the comprehension questions. Test your reading skills, and see the vocabulary used in context.
	Lesson 3	X = Sleep	Practice some algebra. Evaluate equations using "PEMDAS."
		Move to Rest	Learn specific exercises that will keep you healthy <i>and</i> help you sleep well.
	Lesson 4	Dream Big	Read about figurative language and how it is used in poetry and literature. Read a rap song and find examples of figurative language.
	Lesson 5	Dreams & Desires	Express your dreams and desires through art!
		Reflection	Think back to what you've learned. Make meaningful connections in your mind. Write to learn!

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Lesson 1

Sleep

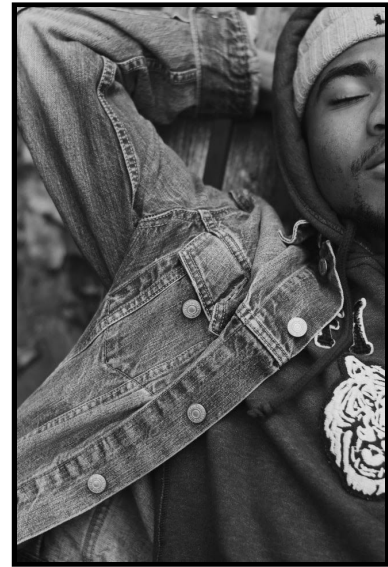
Dreams of a Dream

Accessing Prior Knowledge

What do you **already** know?

This week you will be learning about **sleep** and **dreams**. You will read texts about this topic from Science, Health, History, and Social Studies. You will even do Physical Exercise (PE) and Art related to sleep and dreams.

Educational research shows that In order to learn new information, it's important to **connect** it to what you **already know**. Think about the following questions. If you want, you can talk to a family member or friend to get your ideas flowing. Write your answers to help put your thoughts into words. *You may write in English or another language.*



1. Everyone sleeps, but not everyone experiences the sleep process in the same way. What is sleep like for **you**? Is it easy to fall asleep? Or do you toss and turn (move your body a lot) before you can sleep? Do you wake up easily? Or is it difficult to get out of bed in the morning? *Please explain in detail.*

2. People try different things to help them sleep well. What can help someone fall asleep and sleep well? *List as many ideas as you can.*

3. Doctors (and parents) tell us that sleep is important. Why is sleep important to our health? How does it help our bodies? *Give as many examples as possible.*

4. We also use the word “dreams” to talk about goals we have or things we want to happen in our lives. For example, a young athlete may dream of becoming a professional basketball player someday. That means they hope to play basketball professionally in the future. What are your dreams? What do you want to accomplish in life? What are your dreams for the world?

5. Everyone dreams, but not everyone remembers their dreams. Do you remember your dreams? If so, please draw a picture of the most vivid (clear and memorable) dream you can remember having.

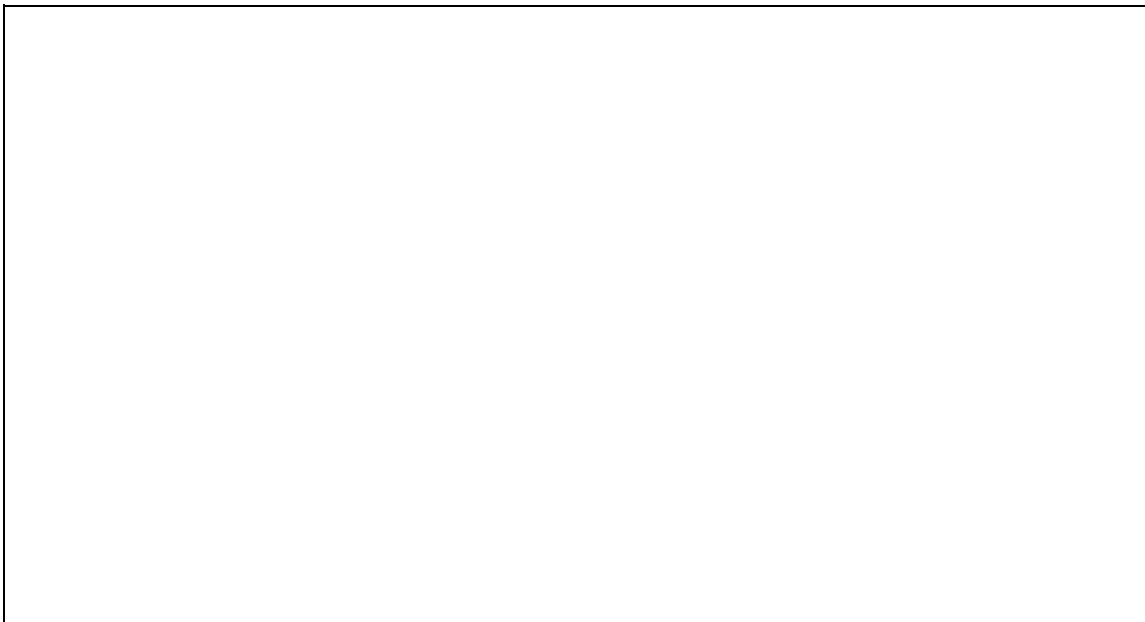







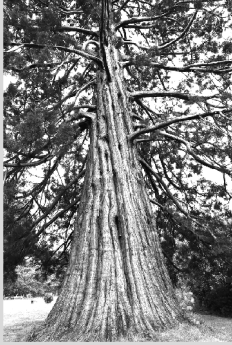





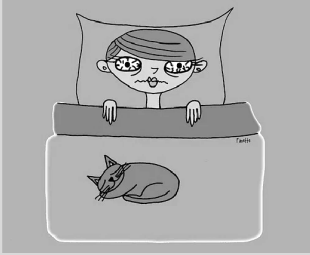



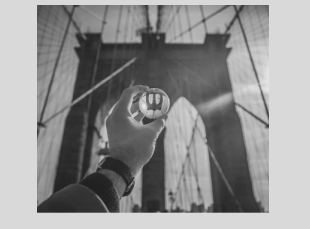

Photo by Cassandra Hamer on Unsplash



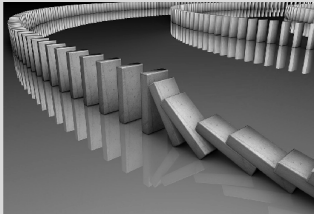
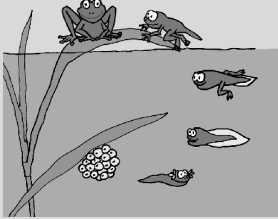
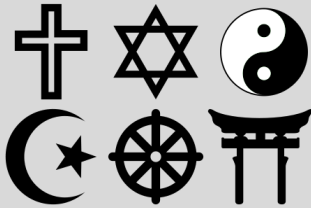

Packet 1 Vocabulary

Directions: Study the vocabulary notes for Packet 1. Then, write a way you will remember the word (home language, connection, drawing). Then cut out the cards to play a memory game. Place all cards face down, so you cannot see the information. Choose two cards at a time to look at and read aloud. If it is a match, you keep the cards! Take turns choosing cards with someone, or play alone and see how fast you can find all the matches!

 Topic Vocabulary  Not Content-Specific Found in the packet readings			
Word	Definition	Visual	How I Remember This Word
awareness	knowledge of a situation or fact, knowing that something is happening or existing		
captivating	attractive and interesting in a way that holds your attention		
conscious	awake and able to understand what is happening around you		
to cope	to deal with problems and difficult situations and try to come up with a solution		

<p>engaged</p>	<p>busy and interested in something, focused on that thing</p>		
<p>to evolve</p>	<p>to change or develop slowly over a long period of time</p>		
<p>function</p>	<p>the special purpose or activity for which a thing exists or is used</p>		
<p>ignorance</p>	<p>not having knowledge, understanding, or education, the state of not knowing something</p>		
<p>insight</p>	<p>the ability to understand people and situations in a very clear way</p>		

<p>insomnia</p>	<p>the medical condition in which you are not able to sleep</p>		
<p>to meditate</p>	<p>to spend time in quiet thought for religious purposes or for relaxation</p>		
<p>moderate (MAH-dur-it)</p>	<p>average in size or amount, not too much and not too little</p>		
<p>pedal to the metal (idiom)</p>	<p>to work very quickly <i>(a pedal is what you push with your foot in a car to drive faster)</i></p>		
<p>perception</p>	<p>the way you think about or understand someone or something</p>		
<p>reluctant</p>	<p>feeling or showing doubt about doing something : not willing or eager to do something</p>		

<p>representation</p>	<p>something (such as a picture or symbol) that carries a special meaning</p>		
<p>restore</p>	<p>to give back something that was lost or taken, to return something to its previous version</p>		
<p>sequence</p>	<p>the order in which things happen or should happen</p>		
<p>stage</p>	<p>a particular point or period in the growth or development of something</p>		
<p>symbol symbolism to symbolize</p>	<p>an action, object, event, image, that is used to express a special meaning</p>		
<p>vigorous</p>	<p>done with great force or energy</p>		

"Cat" by Ian Gray via Flickr licensed under CC BY. All other images licensed under CC 0 Public Domain

----- 卍 Cut Out Vocabulary Words 卍 -----

awareness	captivating	conscious
to cope	engage	to evolve
function	ignorance	insight

insomnia	to meditate	moderate
pedal to the metal	perception	reluctant
representation	restore	sequence
stage	symbol	vigorous

----- 卐 Cut Out Definitions 卐 -----

knowledge of a situation or fact, knowing that something is happening or existing	attractive and interesting in a way that holds your attention	awake and able to understand what is happening around you
to deal with problems and difficult situations and try to come up with a solution	busy and interested in something, focused on that thing	to change or develop slowly over a long period of time
the special purpose or activity for which a thing exists or is used	not having knowledge, understanding, or education, the state of not knowing something	the ability to understand people and situations in a very clear way

<p>the medical condition in which you are not able to sleep</p>	<p>to spend time in quiet thought for religious purposes or for relaxation</p>	<p>average in size or amount, not too much and not too little</p>
<p>to work very quickly</p>	<p>the way you think about or understand someone or something</p>	<p>feeling or showing doubt about doing something : not willing or eager to do something</p>
<p>something (such as a picture or symbol) that carries a special meaning</p>	<p>to give back something that was lost or taken, to return something to its previous version</p>	<p>the order in which things happen or should happen</p>
<p>a particular point or period in the growth or development of something</p>	<p>an action, object, event, image, that is used to express a special meaning</p>	<p>done with great force or energy</p>



Lesson 2

Why Sleep?

by Dara S. Manoach & Robert Stickgold

ABSTRACT

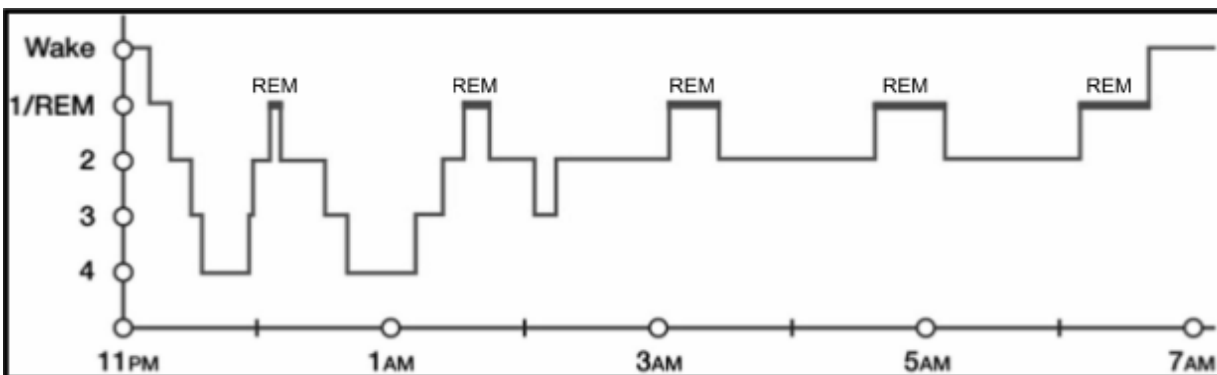
We human beings spend about a third of our lives sleeping. That means that if you live to 90, you'll sleep for about 30 years – probably more time than you'll spend doing anything else. Sleep is really important since we cannot live without it and spend so much time doing it. Yet unlike the other basic biological drives such as eating and reproducing, we still don't understand exactly why we need to sleep. It used to be thought that sleep was mainly to rest and **restore** the body and the mind, and to keep us safe from predators that hunted at night. But over the last 15 years, this view has radically changed. We now know that sleep plays an essential role in learning, memory and emotional well-being. In this review, we'll first discuss the structure of a good night's sleep, and then the role of sleep in learning and memory.

A Good Night's Sleep

Just as a good meal is made up of different kinds of food, a good night requires different kinds of sleep. There are two kinds of sleep:

- **REM** (Rapid Eye Movement)
- **Non-REM** (Non Rapid Eye Movement)

During the night, you pass through the different **stages**, from lighter to deeper sleep and back again over and over again, every 90 minutes. In the wee (early) hours of the morning, sleep becomes lighter and you spend more time in REM sleep, which means more dreaming. In addition, the different patterns of brain activity seen in these sleep stages serve different functions, and as a result each stage helps with specific kinds of learning and memory.



Sleep, Learning, and Memory



Scientists once thought that our learning occurs while we're awake. Now we know that the brain continues to work on new information for days and even years, and that much of this continued learning happens while we're asleep. Sleep is involved in strengthening new memories and fitting them in with what we already know, and updating our older memories based on what we just learned. But we do not remember everything we learn during the day. Somehow, the sleeping brain knows what information is important enough to keep. Here are some examples of what we should “sleep on.”

Procedural Learning

Procedural learning is learning how to do something. When you're learning a new skill, like skiing or playing the piano, you may reach a point where you just can't get any better. But when you try again the next day, your performance is much, much better. This improvement happens while you're asleep, and not just after some amount of time. For example, if you spend 10 minutes typing a **sequence** of keys on a computer keyboard over and over, as fast as you can, after the first 5 minutes you just don't get any faster. But the next morning you'll not only be faster, but you'll be typing more smoothly. On the other hand, if you train in the morning and test that evening with no sleep in between? You won't be any better.



Insight



When you have a problem to solve, someone might tell you to “sleep on it.” But does it really work? A group of researchers taught students to do a special kind of math problem. Unknown to the students, there was a much easier way to do it, but almost none of them figured it out. Some students were trained in the morning and tested 12 hours later (with no napping), but they weren't much better. Only about 22% figured out the shortcut. In contrast, when students were trained in the evening, and tested 12 hours later after a good night of sleep, 60% of them discovered the shortcut! So sleep can lead to **insight!**

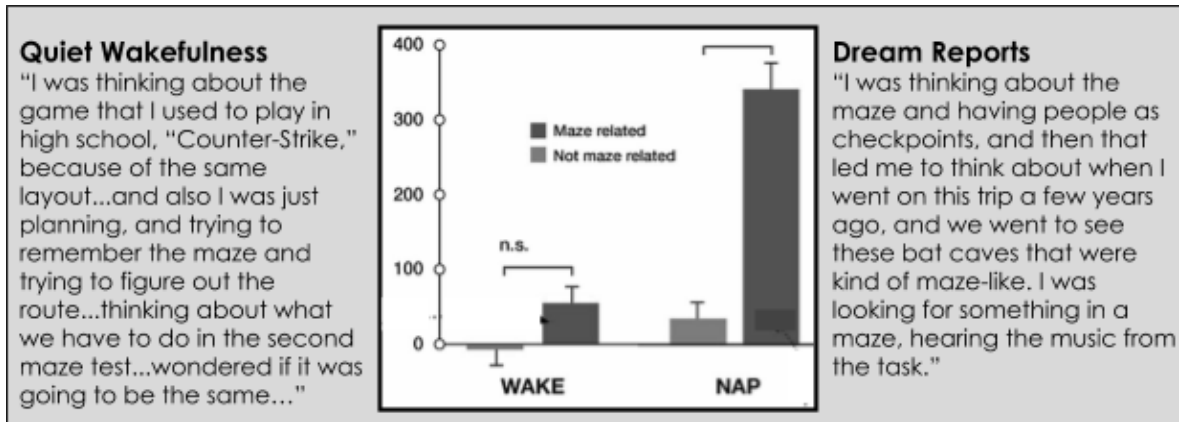
Emotion

Disrupting your sleep makes it harder to manage your feelings. After not getting enough sleep, people who are shown either pleasant or upsetting pictures have more activity in the *amygdala*, a part of the brain involved in emotions. In one study, the amygdala did not communicate as well with another part of the brain that normally helps to control emotional reactions.



Solving Mazes During Dreams

When students play an arcade style video game where they have to find their way through a complex maze, they can actually get better at it by simply taking a nap after practicing. Does dreaming have anything to do with this improvement in their memory of the layout of the maze? It's starting to look like the answer is, Yes. When researchers woke the students up during their naps and asked them what they had been dreaming about, it turned out that those who reported that they were dreaming about something related to the maze later showed ten times more improvement than those who didn't!



What Happens If You Don't Sleep Enough?

When you don't sleep enough, well, you become tired. And aside from the bad health effects of not enough sleep (people who don't sleep enough tend to eat more and unhealthier foods, gain weight, and get sick!), you also don't learn as well the next day and have trouble paying attention. It's almost as if your brain is too full to absorb any more information. For some information learned the day before, it's like you've missed the opportunity to press the 'save' button – it's gone forever. For other learning, you just don't show the normal sleep-dependent improvement (like for that piano piece you practiced). You are also more emotionally reactive to both pleasant and unpleasant events, which can lead you to feel stressed out, yell at friends, and make bad decisions, based more on emotion than reason.

So What's the Bottom Line? (What Can We Learn From This?)

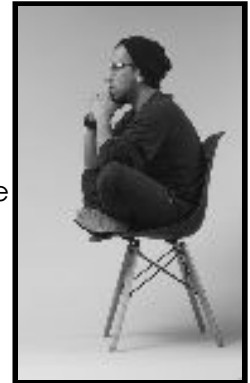
Get enough sleep, and don't sleep with your cell phone by your side. Sleep is too important to miss. A good night's sleep is like a symphony of brain rhythms with each movement serving a different **function**. Cut it short, or let it be interrupted by a text or a tweet, and you may miss the chance to have a breakthrough on that tricky problem you were sleeping on, or to perfect that basketball jump shot. Keep in mind that most teenagers need at least 9 hours of sleep per night! So sweet dreams!

Adapted from "Why Sleep" *Frontiers for Young Minds*, licensed under CC-BY
Photos by Quino Al, Júnior Ferreira, Karina Tess on Unsplash

Why Sleep?

Comprehension & Critical Thinking

You just read a scientific article about why our bodies need sleep. Answer the following comprehension questions. Read the text again if necessary. Take your time. Do not check the answers until you have done your best work.



★Answer Key is at the end of the packet★

1. The author compares a good night's sleep to a "good meal."
According to the article, how are the two things similar?
 - a. Both a good meal and a good night's sleep are important to your health.
 - b. Both are necessary to gain muscle and learn new things.
 - c. A good meal is made up of different kinds of foods, just as a good night's sleep is made up of different stages of sleep.
2. According to the article, what are the two main types of sleep?
 - a. REM and Non-REM
 - b. Sleep for Learning and Sleep for Memory
 - c. Early and Late
3. Which of these would be an example of "procedural learning?"
 - a. solving a complex puzzle
 - b. learning how to drive a car
 - c. learning how to calm yourself

4. Read the following excerpt (short piece) of the text:

"In contrast, when students were trained in the evening, and tested 12 hours later after a good night of sleep, 60% of them discovered the shortcut! So sleep can lead to **insight!**"

Which word best helps you understand the meaning of the word "insight?"

- a. students
 - b. tested
 - c. discovered
 - d. lead
5. Based on the information presented in the text, which memory would the "sleeping brain" be more likely to remember well?
 - a. A memory of seeing a terrible car accident
 - b. A memory of playing with your puppy

Written Analysis

You may write in English or another language.

6. Think back to the section entitled "Solving Mazes During Dreams." Explain the significance or importance of the graph and quotations from students. Why does the author include the visual and the words these students said? What can we learn from it?

7. Think back to the section entitled "What Happens If You Don't Sleep Enough?" Think about a time when you did not get enough sleep. Did you experience some of the things the article mentions? Describe your experience (of not having enough sleep) and connect it to what you learned in this reading.

8. After reading what the scientific community (a group of people who study science) has to say about sleep, do you plan to make any changes to your sleep habits? Why or why not?

Share what you have learned with your family.
Discuss what the whole family can do to get better sleep each night.

Photo by jose aljovin on Unsplash



Lesson 3

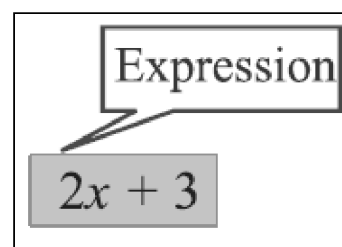
X = Sleep

Using PEMDAS for Order of Operations



Should you put your pajamas (sleep clothes) on before you brush your teeth at night? Does it matter which order you get ready for bed? The answer is *no*. The order that you do your bedtime routine doesn't really matter. What's important is that you keep it consistent (the same each day) and that it works for you!

There are some areas of life, however, where the order we do things in really matters. For example, you should probably put your clothes on *before* leaving your house. **Algebra also requires that you follow a specific "order of operations" when simplifying expressions.**



When you're cooking, you need to follow a recipe to make sure the food tastes good and the meal is a success. It's the same in algebra. **You need to follow the steps in order.**

In other words, you may look at an expression which has (parentheses), exponents (6^2), multiplication \cdot , division \div , addition $+$, and subtraction $-$. You know you're supposed to do something, but which order should you do them in?

The answer is **PEMDAS** (**P**arentheses, **E**xponent, **M**ultiply, **D**ivide, **A**dd, **S**ubtract)

Order of Operations **PEMDAS**

Parentheses (Grouping)

Exponents

Multiply and **D**ivide (Left to Right)

Add and **S**ubtract (Left to Right)

X = Sleep

Using PEMDAS for Order of Operations

PEMDAS Example 1:	$2 + 3(9-4)^2$	Parentheses first!
	$2 + 3(5)^2$	Exponents
	$2 + 3(25)$	Multiply
	$2 + 75$	Add
	77	SOLUTION

Notice: We did not have to do EVERY operation. We did not divide and we did not subtract. That's ok! Just know that IF you do see an operator symbol (to add, subtract, multiply, or divide) that you do it in the correct order.



PEMDAS Example 2:	$30 \div 3 \cdot 2$	Divide first (left to right!)
	$10 \cdot 2$	Multiply
	20	SOLUTION
PEMDAS Example 3:	$5(-5 + 6) \cdot 6^2$	Parentheses
	$5(1) \cdot 6^2$	Exponent
	$5(1) \cdot 36$	Multiply (left to right!)
	$5 \cdot 36$	Multiply
	180	SOLUTION

X = Sleep

Using PEMDAS for Order of Operations

Now you try!

Don't look at the answers until you have done your very best work!

★Answer Key is at the end of the packet★

1.	$(44 - 4) \div 20 - 2^2$	6.	$(64 - 4^2) \div (9 + 7)$
2.	$6 \cdot (12 + 5) + 2^2$	7.	$(33 - 3^2) \div (10 - 2)$
3.	$(8 - 2)^2 + (10 \div 5)$	8.	$(6 \cdot 7 + 8^2) + 2$
4.	$(34 - 6) \div 14 - 7^2$	9.	$(8 - 2)^2 + (8 \div 2)$
5.	$(5 \cdot 6 + 2^2) - 2$	10.	$2 \cdot (10 + 4) - 3^2$

Photo by Phuong Tran on Unsplash

Move to Rest

Exercises for a Good Night's Rest



Working out regularly has so many positive health benefits. It can reduce stress, boost alertness during the day, and even improve your sleep quality. There's no one perfect exercise that will enhance your sleep—any type of movement is better than none—but these three specific activities are scientifically proven to help you get better slumber (*sleep*).

Aerobic (or Cardio) Exercise

Activities that get your heart rate up, such as running, brisk walking, cycling, and swimming, have been shown to improve sleep and battle **insomnia**. Even small bouts, such as 10 minutes, may help, though the goal is to get at least 150 minutes of **moderate**-intensity (or 75 minutes of **vigorous**-intensity) aerobic exercise each week.



Strength Training



Building muscle has been shown to improve the quality of sleep, and it can also help you fall asleep faster and wake up less frequently throughout the night. So try doing exercises like shoulder presses, bicep curls, tricep dips, squats, lunges, calf raises, sit-ups, and push-ups that will make you stronger.

Yoga

Yoga's relaxing poses and stretches, as well as the calming breathing exercises that accompany them, may be especially helpful if stress is what's keeping you from falling asleep. Those with **insomnia** who do yoga daily for eight weeks are likely to fall asleep faster and increase the amount of time that they spend sleeping.



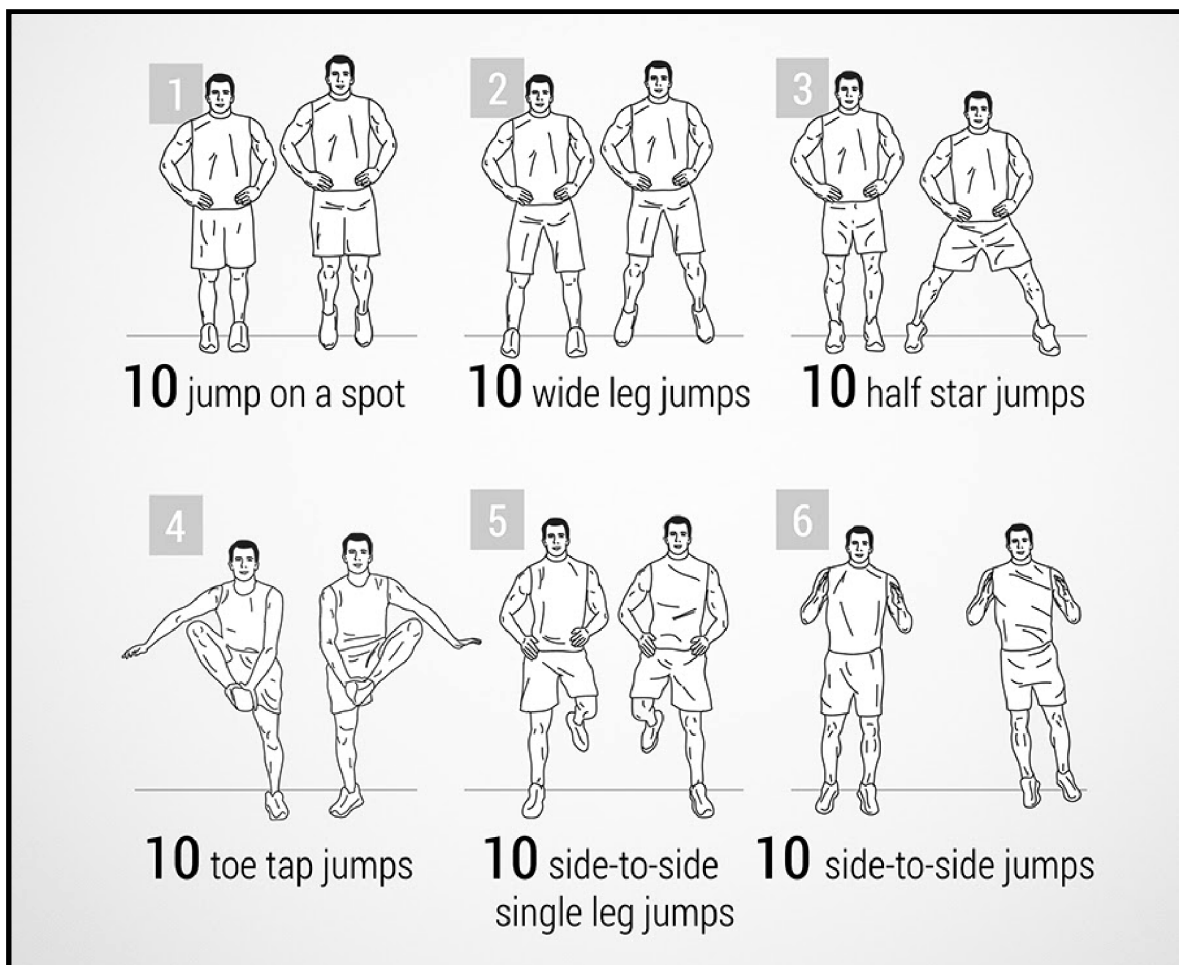
Help Your Body Sleep

Exercises for a Good Night's Rest

Now you know that all types of exercise help with sleep, but aerobics (cardio), strength training, and yoga are particularly beneficial for your sleep health. Let's start out your workout routine by focusing on aerobic (cardio) exercise. You can add strength training and yoga soon!

Aerobic (or Cardio) Exercise

Perhaps the most simple way to get a cardio workout is to go for a run or a brisk (fast) walk. However, if you're not able to leave your home, you can try the following exercises that are proven to get your heart rate up! Mix it up! Try it with a family member. Try to do each exercise 5 times.



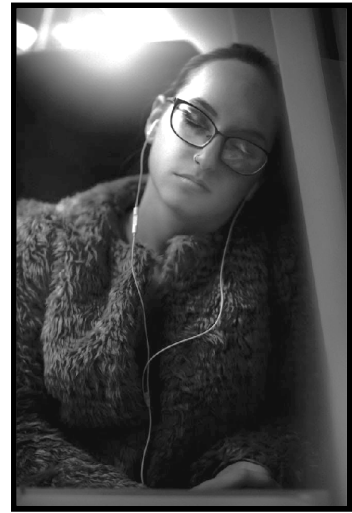


Lesson 4

Dream Big

Figurative Language through Music

Many people listen to music to help themselves fall asleep. Well, the song you'll be learning about is not a particularly relaxing one, but it is all about working hard to meet your goals and achieve your *dreams*! It's called "**First in Flight**" by the rap duo **Blackalicious**. This song will not only introduce you to new vocabulary and grammatical structures, but you'll also develop an understanding of how figurative language is used to express complex emotions and ideas. Plus, music is fun!



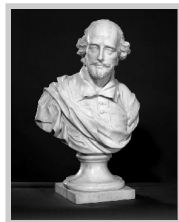
This song is easily found online, but even if you don't have access to the internet, you'll still enjoy the poetic lyrics and creative rhymes. This song is a true *treasure trove* of figurative language, specifically **metaphor** and **simile**.



If you describe something as a "**treasure trove of**" a specific thing, you are saying there is a lot of that thing in it.

Example: *The library is a treasure trove of information.*

Metaphor: Metaphors are a figure of speech that directly compare one thing to another. One of the most famous examples of metaphor in the English language comes from William Shakespear's play *As You Like It*.



**"All the world's a stage,
And all the men and women merely players."**

Shakespeare is comparing these two things: a stage and the world. Of course he does not think that the world is literally a stage. He is using this language in an artistic way. He wants his readers to think about how the two things are similar.

Simile: Similes, like metaphors, also create a comparison. But unlike metaphors, similes use the words “like” and “as” to show the relationship between the two things. Here is an example of a simile using the word “like” from the book *Red Badge of Courage* by Stephen Crane:

**“In the eastern sky there was a yellow patch
like a rug laid for the feet of the coming sun . . .”**



In this case, the reader can easily see that two things are being compared because of the clue word “like.” The “yellow patch” of sky is being compared to a “rug.” This comparison is written as a simile for artistic effect. And you have to admit, it’s a lot more beautiful than simply saying “The sky had a yellow patch in it.”

Now here is an example of a simile using the word “as” from the book *The Handmaid’s Tale* by Margaret Atwood:



**“Time has not stood still. It has washed over me,
washed me away, as if I’m nothing more than a woman
of sand, left by a careless child too near the water.”**

Again, you can easily see that two things are being compared: A woman and a woman made of sand too near the water. You are able to easily identify this as a simile because of the clue word “as.” This simile is an artistic choice. Again, it’s much more beautiful than simply saying, “I feel sad, helpless, and afraid.”

Now it’s time for you to practice finding similes and metaphors in the lyrics of a song. You’ll also be asked to interpret (explain the meaning of) certain similes and metaphors within the context of the song.

Have fun!

“First in Flight” by Blackalicious

“First in Flight” is a song from American rap duo Blackalicious with frontman rapper Gift of Gab. It was released on the highly acclaimed album *Blazing Arrow* (2002). Steve Huey of AllMusic reviewed the album saying, “All the pieces add up to not just one of the best rap albums of 2002, but one of the richest, most **captivating** albums to emerge from hip-hop’s artsy new underground.”



First in flight (x 4)
Cause all we got is rhythm and timing'
We go beyond the edge of the sky

FREE!

Like a bird out in the wind in the night
Like a 747 to LA that's in flight
FREE! Like a garden flourishing in the wind
Like a student about to do it

When he's graduating

FREE! From any of the energy **perception**
Can never be defined create the definition
within

FREE!

Just lovin life itself and never pretend to be
Anything other than the man
I was meant to be, travel through time
And get a glimpse of the centuries
To come a better day is promised remember
FREE! Like my nephew in a few months
About to be out the penitentiary -
meditation (x9)

I never hesitate about a **reluctant** mind
Put the **pedal to the metal** see what ya find
You back there slouching over
Won't you pick up your spine?
Let's make it really really happen
Live up this time, you can choose to say
Good morning God or Good God, morning
With black clouds storming
I walk without umbrellas into these woods
Don't need them because the mighty trees
Above will shelter me good
I'm eating berries from the bushes
Of the heavenly good
From the stakes the power came to us
Whenever we stood
Reverberating out we're reaching
Each and every hood, whenever we could

the spiritual anatomy fool
But never take the credit for it
Because that'd be rude
It's just the way in life we searching for
That had to be new
You gotta work it though because
Everyday ain't Saturday, fool
Evolve into a better life and be happy
With you and me

The first to fly, the first to strive
The first to fight to stay alive
The first to win, the first to strike
The first to live, the first in flight

RISE!

Like the sun up at the crack of the dawn
Like a waking child in the morning
stretching and yawning
RISE! Like an infant being held in the light
Like the smoke from an incense when it's
ignited
RISE! If you're sleeping
Won't you open your eyes again?
The greatest high be that natural high within
No need to force the progression
Just ride the wind
You'll know the answer to the
Where and why and when
If you keep working for your search,
You will find the end, though at the end
You find it only begins again
At the end, you'll see it only begins again
And everything you learn you're only
Remembering

It's me, let your mind and your soul be free
Work to shine, meet your goal, believe
Spread that kind of L-O-V-E
Take some time off the lonely

Dream Big

Comprehension & Critical Thinking

You read the lyrics to the rap song "First in Flight" by Blackalicious. Answer the following figurative language questions. Read the text again if necessary. Take your time. Do not check the answers until you have done your best work.



★Answer Key is at the end of the packet★

1. What significance does the number 2002 have to this song?
 - a. It was the year the album including Gift of Gab's hit song was released.
 - b. It was the year "First in Flight" reached number one on the Rap Songs chart.
2. Read the following excerpts (short pieces) from the song. Which one contains the *best* example of figurative language?
 - a. You'll know the answer to the / Where and why and when
 - b. It was released on the highly acclaimed album *Blazing Arrow*
 - c. I walk without umbrellas into these woods



A songwriter may employ (use) more than one kind of figurative language to express their ideas and emotions. For example: A song lyric may contain a simile that is also a metaphor. Consider each choice carefully and decide what form of figurative language it is the **best** example of.


3. Read the following excerpt from the song.
Decide what it *best* exemplifies. In other words, what is it the best example of?

Rise! Like the sun up at the crack of the dawn / Like a waking child in the morning / stretching and yawning

- a. simile
 - b. metaphor
4. Read the following excerpt from the song.
Decide what it *best* exemplifies. In other words, what is it the best example of?

If you're sleeping, won't you open your eyes again?

- a. simile
- b. metaphor

 Figurative language is an artistic expression, so there is not usually one correct interpretation. However, you can use your reading skills to make inferences about what the writer *really* means. Consider each choice carefully and choose the *most likely* interpretation.

5. Read the following excerpt from the song. It contains figurative language. Make an inference (a good guess) about its meaning. Choose the best interpretation (explanation) of its meaning.



You back there slouching over / Won't you pick up your spine?

- a. Stand up straight. Slouching over is bad for your spine.
- b. You are sad and feeling sorry for yourself. Think positively and work hard.
- c. You look sick and your friends are worried. You should go to the doctor.

6. Read the following excerpt from the song. It contains figurative language. Make an inference (a good guess) about its meaning. Choose the best interpretation (explanation) of its meaning.

I never hesitate about a reluctant mind / Just put the pedal to the metal see what you find

- a. I never stop to think before I make decisions. Therefore, I often make mistakes.
- b. I never doubt my own abilities to be successful. I encourage you to just work hard and see what happens.
- c. I never stop to think while I am driving. I drive to find interesting things in my city.

7. Read the following excerpt from the song. It contains figurative language. Make an inference (a good guess) about its meaning. Choose the best interpretation (explanation) of its meaning.

**FREE! / Like a bird out in the wind in the night / Like a 747 to LA that's in flight / FREE!
Like a garden flourishing in the wind / Like a student about to do it / When he's
graduating**

- a. It feels wonderful to be free. If you try hard enough, you can go anywhere, do anything, and be successful.
- b. It feels very good to free an animal from a cage or to take a trip on an airplane. Gardening is good for your health, and education is important.
- c. Flying at night is like a free trip to sunny California. You should go to school and study how to grow your own food.

Written Analysis

You may write in English or another language.

8. What exactly do you think this song means? Can you write the message of the song in your own words? Provide examples of figurative language found in the text. Use evidence from the text to support your answer.

Share this song with someone else.
See if they agree with your interpretation.

Photos by Zoltan Tasi, Birmingham Museums Trust, Sergey Pesterev, pawel szvmanski, Alex Michaelsen, Joyce McCown, Tachina Lee on Unsplash
Image of Treasure by OpenClipart-Vectors, licensed under Pixabay Free License
Photo of Gift of Gab by Scott Stewart, CC0 Public Domain



Lesson 5

Express Yourself to Sleep Well

Dreams, Desires, & the Mandala



Art, Relaxation, Health, & Sleep

Did you know art can be used to heal and even cure **insomnia**? Art is a great outlet (*a release for ideas and emotions*), and it doesn't matter how much "talent" you have. You simply let your ideas and feelings flow, and you'll feel a difference!

Art is considered to be very **meditative** and can put people at ease, helping with sleep and overall well-being. You may remember using crayons to fill in your coloring books when you were a small child. Well, coloring books are not just for



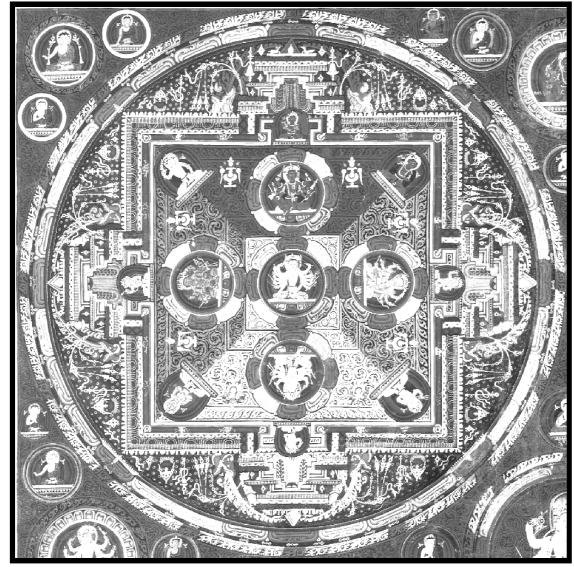
children anymore, but for adults as well. Creating artwork is known to help you be able to recognize your feelings more easily, be more accepting of yourself, overcome fears, and even acquire (*get*) confidence. Letting your emotions run wild on paper with colors and shapes of your choice frees and delights the heart. Once you are more in control and enjoying yourself, you worry less and can sleep better too!

Many people with cancer and other diseases seek (*look for*) the help of an art therapist to **cope**. A lot of hospitals around the globe partner up with art therapists to keep patients **engaged** and cheerful. Art relieves stress and helps beat the blues (*cheer you up*) with a wide palette (paint tray) of colors at your disposal (available for you to use). Creating something of your own provides great satisfaction! It also helps you process your feelings, so you can work through any problems you may be having.



Art Focus: The Mandala

The word “mandala,” meaning “circle,” comes from the ancient language called Sanskrit. A mandala is a part of Hindu and Buddhist teachings. It is a symbolic diagram for sacred (*holy*) ceremonies and is also used as a tool for meditation. According to Hinduism, the mandala is a **representation** of the universe, a consecrated area (*an area that was made holy*). This circular drawing serves as a space for their gods and universal forces. They believe the person who mentally “enters” the mandala and “proceeds” toward its center goes through disintegration (*falling into pieces*) and then reintegration (*coming together again to form a whole*).

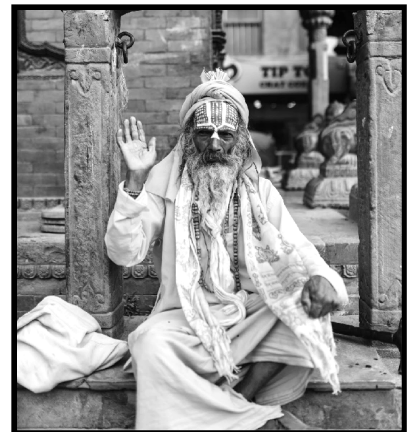


Mandalas may be painted on paper or cloth, drawn on a carefully prepared ground with white and colored threads or with rice powders, made from bronze (*a type of metal*), or built in stone. The mandala of a Tibetan tanka (*cloth scroll painting*) is made up of an outer square around one or more concentric circles (*circles that have the same center*).

Mandalas are full of symbolism. In other words, they have many deep, hidden meanings. For example, the first border surrounding the mandala is the ring of fire, which symbolizes the burning of **ignorance**. The next circle is filled with diamonds, which stand for light. Then comes a circle of eight graveyards, representing individual



awareness. Then comes a circle of lotus leaves, representing spiritual rebirth. Finally, the mandala itself is in the middle, where the most important images are, usually images of gods.



Similar drawings have been found in cultures other than Hindu and Buddhist—for example, in the sand paintings of the North American Indians. The Swiss psychologist



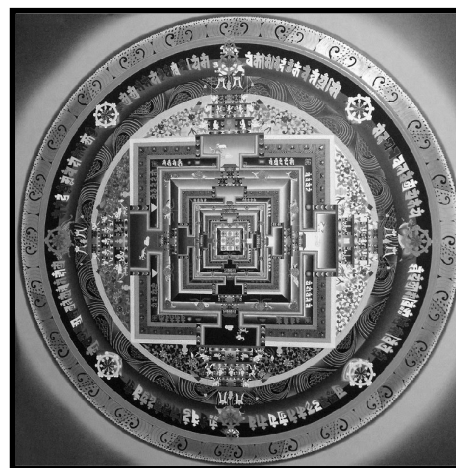
Carl Jung, a scientist who studied the mind and behavior, published studies of mandala-like drawings created by his patients. In his view, the spontaneous production of a mandala (*making it quickly with no planning*) shows a very important step in the psychological process. According to Jung's psychological theory, it represents that a person's mind is trying to connect their **conscious** self with **unconscious** information.

Connect Your Conscious & Unconscious Self

Now it's your turn to create art inspired by the mandala. The next page of your packet is blank. You may use that page to design your mandala.

Follow these steps:

1. Draw a large square in the center, covering most of the paper.
2. Draw concentric circles within the square.
Remember: Concentric means "having the same center"
3. In each circle, draw symbols that represent something that is meaningful to you.
For example, you might draw a series of moons to symbolize sleep and dreams, or a series of flowers to symbolize growth and life.
4. Within the circles, draw other circles and squares, each one with symbols that represent something meaningful to you.
5. Put the most important symbols in the middle of the mandala.



Note: This activity should relax you, so perhaps begin in the evening shortly before bedtime. Try to go someplace quiet to create your art. Do not think too much while you draw your mandala. Let your hands move freely. Meditate on the symbols and what they represent for you. Perhaps you will learn something about yourself while making your art. Remember, it will not be perfect, but it will be perfectly yours.

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Reflection

A Focus on Sleep

You have now learned a lot about sleep. You began by thinking about what you already knew about **sleep** and **dreams**. You were introduced to new **vocabulary**, practiced it, and used it throughout the activities. You learned the **science** behind sleep and why it's important for your **health**. You solved **equations** about sleep by using **algebra**. You exercised your body using techniques that **build muscle**



and help you sleep. You learned about the **figurative language** used in the **hip-hop** music genre. You explored how **art** is used to aid in **relaxation** and better sleep. You learned about traditional **Hindu and Buddhist art**, and you created **art** that **expressed** your **dreams** and **desires**. Now it is time to **reflect** (think back on) all that you have learned.

If you are struggling to begin, first try answering the following questions:

You are not required to write these; just think about them to help you get started.

- Did the activities in this packet challenge you socially, culturally, emotionally, or in some other way? If so, which activity? How? Why did it catch your attention?
- Have the activities changed your way of thinking? Did they conflict with beliefs you held previously, and what evidence did it provide you with in order to change your thought process on the topic?
- Did the activities leave you with any questions? Were these questions ones you had previously or ones you developed only after finishing?
- How do the ideas presented in this packet mesh (fit in) with your own experiences?

-Adapted from "How to Write a Reflection Paper" via *Wikihow* licensed under CC-BY-NC-SA 3.0
-Photo by Rodrigo Pereira on Unsplash



Reference Sheet

LENGTH	
Metric	Customary
1 kilometer = 1000 meters	1 mile = 1760 yards
1 meter = 100 centimeters	1 mile = 5280 feet
1 centimeter = 10 millimeters	1 yard = 3 feet
	1 foot = 12 inches

CAPACITY AND VOLUME	
Metric	Customary
1 liter = 1000 milliliters	1 gallon = 4 quarts
	1 gallon = 128 ounces
	1 quart = 2 pints
	1 pint = 2 cups
	1 cup = 8 ounces

MASS AND WEIGHT	
Metric	Customary
1 kilogram = 1000 grams	1 ton = 2000 pounds
1 gram = 1000 milligrams	1 pound = 16 ounces

TIME	
1 year = 365 days	
1 year = 12 months	
1 year = 52 weeks	
1 week = 7 days	
1 day = 24 hours	
1 hour = 60 minutes	
1 minute = 60 seconds	



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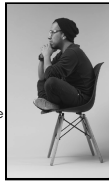


ANSWER KEYS

Why Sleep? ANSWER KEY

Comprehension & Critical Thinking

You just read a scientific article about why our bodies need sleep. Answer the following comprehension questions. Read the text again if necessary. Take your time. Do not check the answers until you have done your best work.



★THIS IS THE ANSWER KEY★

- The author compares a good night's sleep to a "good meal." According to the article, how are the two things similar?
 - Both a good meal and a good night's sleep are important to your health.
 - Both are necessary to gain muscle and learn new things.
 - A good meal is made up of different kinds of foods, just as a good night's sleep is made up of different stages of sleep.
- According to the article, what are the two main types of sleep?
 - REM and Non-REM
 - Sleep for Learning and Sleep for Memory
 - Early and Late
- Which of these would be an example of "procedural learning?"
 - solving a complex puzzle
 - learning how to drive a car
 - learning how to calm yourself
- Read the following excerpt (short piece) of the text:

"In contrast, when students were trained in the evening, and tested 12 hours later after a good night of sleep, 60% of them discovered the shortcut! So sleep can lead to **insight!**"

Which word best helps you understand the meaning of the word "insight?"

- students
 - tested
 - discovered
 - lead
- Based on the information presented in the text, which memory would the "sleeping brain" be more likely to remember well?
 - A memory of seeing a terrible car accident
 - A memory of playing with your puppy

Written Analysis

You may write in English or another language.

- Think back to the section entitled "Solving Mazes During Dreams." Explain the significance or importance of the graph and quotations from students. Why does the author include the visual and the words these students said? What can we learn from it?

MANY POSSIBLE ANSWERS: The graph and the quotations from the students are important because it helps the reader understand the results of the study. The author included this graphic because it is often helpful to see a visual when you're reading data (information with numbers). By looking at the chart, I can see that students who remain awake do not think about the maze as much as the students who sleep and dream of the maze. The quotations give me some insight into how the study was conducted (done) and what kinds of thoughts the students had.

- Think back to the section entitled "What Happens If You Don't Sleep Enough?" Think about a time when you did not get enough sleep. Did you experience some of the things the article mentions? Describe your experience (of not having enough sleep) and connect it to what you learned in this reading.

YOUR PERSONAL ANSWER

- After reading what the scientific community (a group of people who study science) has to say about sleep, do you plan to make any changes to your sleep habits? Why or why not?

YOUR PERSONAL ANSWER

Share what you have learned with your family.
Discuss what the whole family can do to get better sleep each night.

Photo by Jose Aljovin on Unsplash

X = Sleep ANSWER KEY

Using PEMDAS for Order of Operations

★THIS IS THE ANSWER KEY★

1.	$\begin{aligned} (44 - 4) \div 20 - 2^2 \\ 40 \div 20 - 2^2 \\ 40 \div 20 - 4 \\ 2 - 4 \\ -2 \end{aligned}$	6.	$\begin{aligned} (64 - 4^2) \div (9 + 7) \\ (64 - 16) \div (9 + 7) \\ 48 \div 16 \\ 3 \end{aligned}$
2.	$\begin{aligned} 6 \cdot (12 + 5) + 2^2 \\ 6 \cdot 17 + 2^2 \\ 6 \cdot 17 + 4 \\ 102 + 4 \\ 106 \end{aligned}$	7.	$\begin{aligned} (33 - 3^2) \div (10 - 2) \\ (33 - 9) \div (10 - 2) \\ 24 \div 8 \\ 3 \end{aligned}$
3.	$\begin{aligned} (8 - 2)^2 + (10 \div 5) \\ 6^2 + 2 \\ 36 + 2 \\ 38 \end{aligned}$	8.	$\begin{aligned} (6 \cdot 7 + 8^2) + 2 \\ (6 \cdot 7 + 64) + 2 \\ (42 + 64) + 2 \\ 106 + 2 \\ 108 \end{aligned}$
4.	$\begin{aligned} (34 - 6) \div 14 - 7^2 \\ 28 \div 14 - 7^2 \\ 28 \div 14 - 49 \\ 2 - 49 \\ -47 \end{aligned}$	9.	$\begin{aligned} (8 - 2)^2 + (8 \div 2) \\ 6^2 + 4 \\ 36 + 4 \\ 40 \end{aligned}$
5.	$\begin{aligned} (5 \cdot 6 + 2^2) - 2 \\ (5 \cdot 6 + 4) - 2 \\ (30 + 4) - 2 \\ (34) - 2 \\ 32 \end{aligned}$	10.	$\begin{aligned} 2 \cdot (10 + 4) - 3^2 \\ 2 \cdot (14) - 3^2 \\ 2 \cdot (14) - 9 \\ 28 - 9 \\ 19 \end{aligned}$

Dream Big ANSWER KEY

Comprehension & Critical Thinking

You read the lyrics to the rap song "First in Flight" by Blackalicious. Answer the following figurative language questions. Read the text again if necessary. Take your time. Do not check the answers until you have done your best work.



★THIS IS THE ANSWER KEY★

1. What significance does the number 2002 have to this song?
 - a. It was the year the album including Gift of Gab's hit song was released.
 - b. It was the year "First in Flight" reached number one on the Rap Songs chart.
2. Which of these excerpts (short pieces) from the song. Which one contains the best example of figurative language?
 - a. You'll know the answer to the / Where and why and when
 - b. It was released on the highly acclaimed album Blazing Arrow
 - c. I walk without umbrellas into these woods



A songwriter may employ (use) more than one kind of figurative language to express their ideas and emotions. For example: A song lyric may contain a simile that is also a metaphor. Consider each choice carefully and decide what form of figurative language it is the **best** example of.

3. Read the following excerpt from the song. Decide what it best exemplifies. In other words, what is it the best example of?

Rise! Like the sun up at the crack of the dawn / Like a waking child in the morning / stretching and yawning

- a. simile
- b. metaphor

4. Read the following excerpt from the song. Decide what it best exemplifies. In other words, what is it the best example of?

If you're sleeping, won't you open your eyes again?

- a. simile
- b. metaphor



Figurative language is an artistic expression, so there is not usually one correct interpretation. However, you can use your reading skills to make inferences about what the writer really means. Consider each choice carefully and choose the *most likely* interpretation.

5. Read the following excerpt from the song. It contains figurative language. Make an inference (a good guess) about its meaning. Choose the best interpretation (explanation) of its meaning.



You back there slouching over / Won't you pick up your spine?

- a. Stand up straight. Slouching over is bad for your spine.
 - b. You are sad and feeling sorry for yourself. Think positively and work hard.
 - c. You look sick and your friends are worried. You should go to the doctor.
6. Read the following excerpt from the song. It contains figurative language. Make an inference (a good guess) about its meaning. Choose the best interpretation (explanation) of its meaning.

I never hesitate about a reluctant mind / Just put the pedal to the metal see what you find

- a. I never stop to think before I make decisions. Therefore, I often make mistakes.
- b. I never doubt my own abilities to be successful. I encourage you to just work hard and see what happens.
- c. I never stop to think while I am driving. I drive to find interesting things in my city.

7. Read the following excerpt from the song. It contains figurative language. Make an inference (a good guess) about its meaning. Choose the best interpretation (explanation) of its meaning.

FREE! / Like a bird out in the wind in the night / Like a 747 to LA that's in flight / FREE! Like a garden flourishing in the wind / Like a student about to do it / When he's graduating

- a. It feels wonderful to be free. If you try hard enough, you can go anywhere, do anything, and be successful.
- b. It feels very good to free an animal from a cage or to take a trip on an airplane. Gardening is good for your health, and education is important.
- c. Flying at night is like a free trip to sunny California. You should go to school and study how to grow your own food.

Written Analysis

You may write in English or another language.

8. What exactly do you think this song means? Can you write the message of the song in your own words? Provide examples of figurative language found in the text. Use evidence from the text to support your answer.

YOUR PERSONAL ANSWER

Share this song with someone else.
See if they agree with your interpretation.

Photo 1 by Zoltan Tasi on Unsplash
Photo 2 of Gift of Gab by Scott Stewart, CC0 Public Domain
Photo 3 by Alex Michaelsen on Unsplash
Photo 4 by Joyce McCown on Unsplash
Photo 5 by Tachina Lee on Unsplash