OLYMPIADS SCHOOL/GRADE 9 AND 10 WRITING/HOMEWORK 13

NAME (FIRST AND LAST): _____ GRADE:__

VOCABULARY AND READING COMPREHENSION

Read the following two articles about earworms and how we get them. Fill in the blanks with words or phrases that match the bracketed words in meaning.

ARTICLE ONE

http://www.sciencefriday.com/articles/why-do-songs-get-stuck-in-our-heads/

Why Do Songs Get Stuck in Our Heads?

Why some tunes lodge in our brains isn't so clear. Here are a few theories.
by Chau Tu, on May 28, 2014

Can't get that new song out of your head? You've probably got an earworm, which "tends to be this little fragment, often a bit of the chorus of the song, that just plays

and replays like it's **_____ (stuck on loop)** in your head," says Elizabeth Margulis, director of the Music Cognition Lab at the University of Arkansas and author of *On Repeat: How Music Plays the Mind.* The

_____ (quirky) YouTube hit "What Does the Fox Say?" by Ylvis, Starship's "We Built This City," and The Baha Men's "Who Let the Dogs Out?" are just a few tunes known to spawn earworms, according to Margulis.

The phenomenon is quite common. For instance, a study from the *Proceedings of the 10th International Conference on Music Perception and Cognition* found that more than 91 percent of people reported having an earworm at least once a week, while about a quarter had them more than once a day.

As frequent as earworms may be, however, what triggers them and why they occur still remain mysteries. That's mainly because earworms—which tend to last eight seconds—are by definition involuntary, and therefore tracking them in a scientific setting can be a near-impossible task. Researchers have yet to develop consistent methods of inducing earworms in test subjects. The data that researchers have culled on the subject so far come from surveys of a few thousand people or from small diary studies—but participants can be unreliable in recalling how often they get earworms, for how long, what they were doing at the time, what might have caused the earworm to disappear, and so on.

Music cognition research suggests that earworms could have something to do with how music affects the brain's motor cortex, according to Margulis. When people listen to music, "there's a lot of activity in the motor planning regions," she says. "People are often imaginatively participating even while they're sitting still."

Repetitive listening could also breed earworms. Indeed, 90 percent of the time, we listen to music we've heard before, says Margulis, and "when you've heard [a song] the fourth or fifth time, [one] note carries with it just so clearly the implications of the next note. You can almost feel exactly what's going to happen next."

A song's structure might contribute to brain burrowing, too. "There are general patterns of characteristics for songs that frequently get stuck, such as being simple, repetitive, and having some mild incongruity," James Kellaris, a professor of marketing at the University of Cincinnati who's conducted research on the influence of music on memory, wrote in an email.

In one study, researchers led by Victoria Williamson, a visiting professor at Switzerland's Lucerne University of Applied Sciences and Arts and a fellow at the University of Sheffield, analyzed more than 50 different musical features and found that earworm songs—tunes that were mentioned by at least three different people in her survey—tend to have notes with longer durations but smaller pitch intervals. This makes sense, she says, because these are two main features that make songs easier to sing, even for the musically untrained. "Fundamentally, an earworm is your brain singing," Williamson says. Earworm songs also have a certain amount of built-in

predictability, coupled with enough **_____ (novelty)** to

_____ (pique) a listener's interest.

While almost everyone gets earworms at some point, Williamson's research has found that people with neuroticism and non-clinical levels of obsessive compulsion experience them more often, and for longer periods of time. "These people tend to have more repeated thought processes in general, so it's perhaps not a huge surprise that these are reflected in their experiences of mental music as well," she says.

Earworm susceptibility also has an idiosyncratic component—experiencing them seems to involve being in the right mood (or wrong one, depending on your opinion of the earworm) at the right time. "In addition to traits of songs and traits of people (such as being mildly neurotic or having high exposure levels to music), situation comes into play as a third factor," Kellaris wrote. "It appears that earworms are more likely to bite when the victim is tired, stressed, or idle."

Despite the complaints of sufferers, however, the majority of our earworms are actually somewhat enjoyable or neutral experiences, according to Williamson. Her research has shown that people consider only about 30 percent of earworms to be

"annoying." "We **_____ (are more inclined)** to remember the things that annoy us," she says. "So if you ask somebody about an earworm, they'll tell you about the one that annoyed them yesterday. They won't tell you the three or four they briefly had in their head which they didn't really notice, or [which] just kept them company as they walked around."

Once an earworm lodges in your psyche, how do you get rid of it? Williamson says the best method is for people to distract themselves with other music or to do something that involves language—perhaps tackle a crossword or start a conversation with somebody. A second technique seems counterintuitive: Engage with the earworm song itself by listening to it repeatedly so as to exhaust the earworm or "complete it," says Williamson. Because earworms are only fragments of music, listening to the entire track might relieve a person of repeating the same part in her head.

ARTICLE TWO

http://time.com/45440/let-it-go-stuck-in-head/

YES, IT'S POSSIBLE TO GET 'LET IT GO' OUT OF YOUR HEAD

Jeffrey Kluger @jeffreykluger April 1, 2014

If you're like half the people on the globe, the song "Let It Go" has been been playing on an endless loop in your head since you either saw Frozen, heard Idina Menzel/Adele Dazeem sing the film's most infectious song on the Academy Awards, walked into any public space that has a radio on, or—in the most extreme cases—have children under 10. The authorized Disney version on YouTube has been streamed more than 166 million times. It's been sung by TV traffic reporters and remixed as a club anthem.

It was a lovely song the first time. Even the 20th. But the 200th?

Before you ask: No, pounding your head on your desk will not

_____ **(dislodge)** a song from your brain. But there is hope—not least because science is on the case.

The use of the word "infectious" is more than a metaphor in the case of a song like this, because the exponential way it spreads indeed resembles nothing so much as a pandemic. Think a flu can get passed around easily in a crowded elevator or movie theater? What about a song trickling from the Muzak or blasting from the screen? You can even pick it up person to person, on the street, passing someone who's humming the blasted thing—the musical equivalent of an uncovered sneeze.

What makes these songs—which the Germans call ohrwurms and we picturesquely translate to earworms—stick, and how can you get them unstuck? First of all, not every song has earworm potential. Even Mrs. Wagner probably never got any of Richard's songs stuck in her head—though research does show that classical composers and fans of their music can contract that form of higher-brow earworm. Typically, however, it's the simplicity and repetitiveness of a song that gives it its

auditory stickiness, U.K. musicologist Vicky Williamson told NPR in a 2012 interview. In the same way parents of babies and toddlers pick up every cold their viral-sponge children contract in day care and pre-K, so too do they become infected with Raffi and Barney and The Wiggles.

"I get many, many _____ **(frayed)** parents who have listened to too many children's introduction songs or learning songs," Williamson said. "They heard them 30, 40, 50, 100 times and they're stuck as a result."

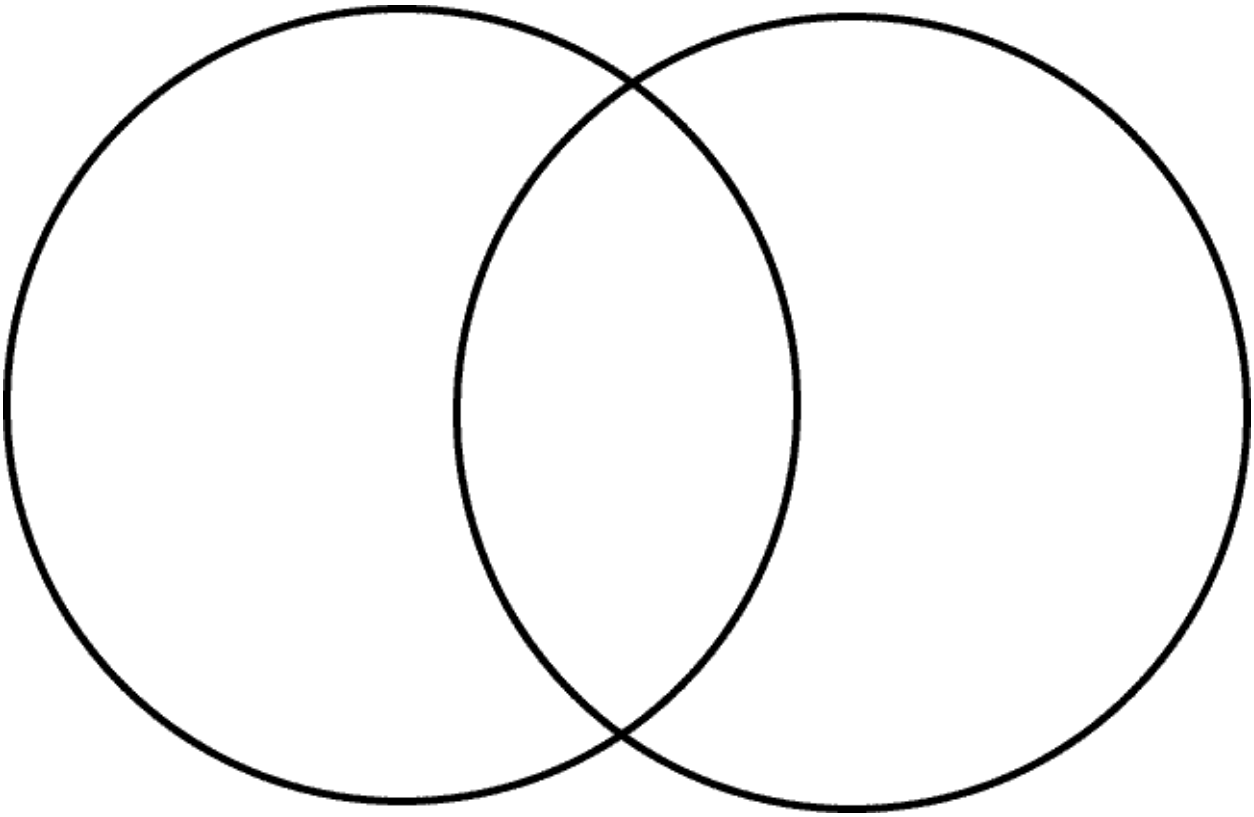
Commercial jingles, of course, are _____ **(deliberately)** designed for just this contagious simplicity—a little like cooking up a superflu in a lab

and _____ **(unleashing it on)** the world. The target of the jingle or other earworm, says consumer psychologist James Kellaris of the University of Cincinnati, is the brain's primary auditory cortex, which is located in the temporal lobe—a site also associated with short-term memory. But if you think the "short" part of short-term offers hope for the death of the worm, forget it. Some songs have the

power to _____ **(subvert)** the brain's quick erasure mechanism, with each repetition only making the problem worse, the way that scratching a rash just makes it itch more. As Kellaris explained to a consumer psychology conference, "certain pieces of music may have properties that excite an abnormal reaction in the brain." Indeed, "abnormal reaction" is a decidedly polite way of describing the feeling of being willing to extract your own brain through your ears as long as it means you could yank the song out too and stomp it to death on the floor.

WRITING SKILLS/CRITICAL THINKING

Using a Venn diagram, compare and contrast the two articles about earworms.



Both articles can be read as cause-and-effect essays. What causes do they discuss, and what effects do they emphasize?

_____

_____

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GRAMMAR

RUN ON SENTENCE

Key Information

A **run-on sentence** consists of two or more complete sentences presented as though they were one sentence.

There are three basic types of run-on sentences.

COMMA SPLICE:	I called Mark with the news, he called Sara.
CORRECTED:	I called Mark with the news. Then he called Sara.
CORRECTED:	I called Mark with the news, and then he called Sara.
NO PUNCTUATION:	I gave the first speech I was nervous.
CORRECTED:	I gave the first speech. I was nervous.
CORRECTED:	I gave the first speech; I was nervous.
CORRECTED:	I gave the first speech, and I was nervous.
NO COMMA BEFORE THE CONJUNCTION:	My sister drives to school each day but I still take the bus.
CORRECTED:	My sister drives to school each day, but I still take the bus.

A. Identifying Run-on Sentences

Write whether each of the following sentences is a *run-on* or a *correct* sentence.

_____ **1.** Many jazz critics consider Duke Ellington's big band the most talented group of all time, some think Count Basie's band was more exciting.

_____ **2.** The bands' differences could be seen in their leaders, for Ellington was sophisticated and sometimes very showy while Basie was less pretentious and more direct.

_____ **3.** Despite these differences an amazing event occurred in 1961 when the two entire bands played together in a New York recording studio it was the first and last time the bands ever combined their talents.

_____ **4.** The members of both all-star bands crammed into the studio, and the Count and the Duke sat across from each other at twin grand pianos.

_____ **5.** The recording that resulted from this collaboration is truly a classic, it was as if the two great basketball players Larry Bird and Michael Jordan teamed up only once to play on the same team.

B. Correcting Run-on Sentences

Choose any two of the sentences above that you identified as run-ons, and write correct versions of them.

_____

_____

_____

_____

_____

_____

REGULAR AND IRREGULAR VERBS

Key Information

A **regular verb** forms its past and past participle by adding *-ed* to the base form.

Base Form	Past Form	Past Participle
jump	jumped	jumped
paint	painted	painted

An **irregular** verb forms its past and past participle in some way other than adding *-ed* to the base form.

Base Form	Past Form	Past Participle
grow	grew	grown
swim	swam	swum

A. Supplying the Correct Principal Part

Complete the following sentences with the correct form of the verb in parentheses.

1. I have _____ a horse only once. (ride)
2. The eager tenor _____ his favorite solo for the audition. (perform)
3. Mother does not think we should _____ so soon after lunch. (swim)
4. Is there anyone here who has not _____ his or her essay yet? (write)
5. Paper must be _____ into the tiniest of bits to make good confetti. (rip)
6. Every March 21, Grandpa would open the windows and cry, "Spring has _____ !" (spring)
7. Mary _____ the groceries home from the store and set them on the kitchen table. (carry)
8. A huge cloud of dust _____ after the building was demolished. (rise)
9. For years my father has _____ on the sofa for a nap every night after dinner. (lie)
10. In fact, Dad _____ a long time ago that the sofa was to be his every night at this time. (declare)

B. Using the Correct Principal Part

Write a sentence using each of the following verb forms.

1. (past form of *think*) _____
2. (past participle of *go*) _____
3. (past form of *hurry*) _____

PERFECT TENSES

Key Information

The **present perfect tense** is used to express an action or condition that occurred at some *indefinite* time in the past. It consists of *has* or *have* plus the past participle of a verb.

Paul **has ordered** his class ring.

The **past perfect tense** is used to indicate that one past action or condition began *and* ended before another past action started. It consists of *had* plus the past participle of a verb.

He **had asked** three times before she agreed to marry him.

The **future perfect tense** is used to express one future action or condition that will begin *and* end before another future event starts. It consists of *will have* or *shall have* plus the past participle of a verb.

By the time I am old enough to drive, our car probably **will have become** a heap of junk.

A. Identifying Perfect Tenses

Underline the correct auxiliary verb in each of the following sentences. Above each verb write whether the entire verb is in the present perfect (*PRP*), past perfect (*PP*), or future perfect (*FP*) tense.

1. By 2010, people (have/will have) been reading the works of Charles Dickens for more than 170 years.
2. In the years after the Victorian era, people (had/have) enjoyed reading about Ebenezer Scrooge in *A Christmas Carol.*
3. After millions of people (had/have) experienced this tale of a cheap English businessman who is scared into changing his ways, the name *Scrooge* came to mean a person who is greedy, mean, and hateful.
4. Thanks to another great Dickens work, *A Tale of Two Cities,* millions more people (will have/have) understood the very real human emotions involved in a historical event as important as the French Revolution.
5. By the time of his death, Charles Dickens (has/had) published more than fifteen novels.

B. Using Perfect Tenses

Write a sentence using each of the following verb tenses.

1. (future perfect tense of *begin*) _____

   _____
2. (past perfect tense of *rehearse*) _____

   _____
3. (present perfect tense of *lose*) _____

   _____

THE END