Name: Pd. ____ Offensive Play: How different are dogfighting and football?

Read the article, annotating for understanding; underline, circle, ask questions and comment in the margins.
Answer the questions using complete sentences.

1. What is C.T.E.?

2. Who is Ann McKee and what are two reasons she is featured in the article?

3. Who is Bennet Omalu and what are two reasons he is featured in the article?

4. *Embedding* quotes form the article in your writing and using parenthetical citation, write a 300-word mini-essay advocating for / calling for the elimination of football – at least football as we know the sport today – in the United States.
This paragraph must be **word-processed** and must contain at least *five* brief quoted passages from the article.

Example: While concussions and big, bell-ringing hits cause certain trouble for football players and their brains, linemen, especially, who, in games and in practice, have suffered "thousands of jarring blows that shake the brain from front to back and side to side," are particularly likely to have C.T.E. (23).

**Offensive Play: How different are dogfighting and football?**
**Malcolm Gladwell, *The New Yorker*; October 19, 2009**

One evening in August, Kyle Turley was at a bar in Nashville with his wife and some friends. It was one of the countless little places in the city that play live music. He'd ordered a beer, but was just sipping it, because he was driving home. He had eaten an hour and a half earlier. Suddenly, he felt a sensation of heat. He was light-headed, and began to sweat. He had been having episodes like that with increasing frequency during the past year—headaches, nausea. One month, he had vertigo every day, bouts in which he felt as if he were stuck to a wall. But this was worse. He asked his wife if he could sit on her stool for a moment. The warmup band was still playing, and he remembers saying, "I'm just going to take a nap right here until the next band comes on." Then he was lying on the floor, and someone was standing over him. "The guy was freaking out," Turley recalled. "He was saying, 'Damn, man, I couldn't find a pulse,' and my wife said, 'No, no. You were breathing.' I'm, like, 'What? What?' "

They picked him up. “We went out in the parking lot, and I just lost it,” Turley went on. “I started puking everywhere. I couldn’t stop. I got in the car, still puking. My wife, she was really scared, because I had never passed out like that before, and I started becoming really paranoid. I went into a panic. We get to the emergency room. I started to lose control. My limbs were shaking, and I couldn’t speak. I was conscious, but I couldn’t speak the words I wanted to say.”

Turley is six feet five. He is thirty-four years old, with a square jaw and blue eyes. For nine years, before he retired, in 2007, he was an offensive lineman in the National Football League. He knew all the stories about former football players. Mike Webster, the longtime Pittsburgh Steeler and one of the greatest players in N.F.L. history, ended his life a recluse, sleeping on the floor of the Pittsburgh Amtrak station. Another former Pittsburgh Steeler, Terry Long, drifted into chaos and killed himself four years ago by drinking antifreeze. Andre Waters, a former defensive back for the Philadelphia Eagles, sank into depression and pleaded with his girlfriend—“I need help, somebody help me”—before shooting himself in the head. There were men with aching knees and backs and hands, from all those years of playing football. But their real problem was with their heads, the one part of their body that got hit over and over again.

“Lately, I’ve tried to break it down,” Turley said. “I remember, every season, multiple occasions where I’d hit someone so hard that my eyes went cross-eyed, and they wouldn’t come uncrossed for a full series of plays. You are just out there, trying to hit the guy in the middle, because there are three of them. You don’t remember much. There are the cases where you hit a guy and you’d get into a collision where everything goes off. You’re dazed. And there are the others where you are involved in a big, long drive. You start on your own five-yard line, and drive all the way down the field—fifteen, eighteen plays in a row sometimes. Every play: collision, collision, collision. By the time you get to the other end of the field, you’re seeing spots. You feel like you are going to black out. Literally, these white explosions—boom, boom, boom—lights getting dimmer and brighter, dimmer and brighter.

“Then, there was the time when I got knocked unconscious. That was in St. Louis, in 2003. My wife said that I was out a minute or two on the field. But I was gone for about four hours after that. It was the last play of the third quarter. We were playing the Packers. I got hit in the back of the head. I saw it on film a little while afterward. I was running downfield, made a block on a guy. We fell to the ground. A guy was chasing the play, a little guy, a defensive back, and he jumped over me as I was coming up, and he kneed me right in the back of the head. Boom!

“They sat me down on the bench. I remember Marshall Faulk coming up and joking with me, because he knew that I was messed up. That’s what happens in the N.F.L: ‘Oooh. You got effed up. Oooh.’ The trainer came up to me and said, ‘Kyle, let’s take you to the locker room.’ I remember looking up at a clock, and there was only a minute and a half left in the game—and I had no idea that much time had elapsed. I showered and took all my gear off. I was sitting at my locker. I don’t remember anything. When I came back, after being hospitalized, the guys were joking with me because Georgia Frontiere”—then the team’s owner—“came in the locker room, and they said I was butt-ass naked and I gave her a big hug. They were dying laughing, and I was, like, ‘Are you serious? I did that?’

“They cleared me for practice that Thursday. I probably shouldn’t have. I don’t know what damage I did from that, because my head was really hurting. But when you’re

coming off an injury you're frustrated. I wanted to play the next game. I was just so mad that this happened to me that I'm overdoing it. I was just going after guys in practice. I was really trying to use my head more, because I was so frustrated, and the coaches on the sidelines are, like, 'Yeah. We're going to win this game. He's going to lead the team.' That's football. You're told either that you're hurt or that you're injured. There is no middle ground. If you are hurt, you can play. If you are injured, you can't, and the line is whether you can walk and if you can put on a helmet and pads."

Turley said that he loved playing football so much that he would do it all again. Then he began talking about what he had gone through in the past year. The thing that scared him most about that night at the bar was that it felt exactly like the time he was knocked unconscious. "It was identical," he said. "It was my worst episode ever."

(Note: I cut material about research – the slicing up of brains -- of Alzheimer's patients)

. . . The patient [*not* Turley] may have been in an Alzheimer's facility, and may have looked and acted as if he had Alzheimer's. But Ann McKee, chief of a neuropathology [*the study of diseases of the nervous system]* laboratory in Massachusetts, realized that a patient had a different condition, called **chronic traumatic encephalopathy** (C.T.E.), which is a progressive neurological [*brain*] disorder found in people who have suffered some kind of brain trauma. C.T.E. has many of the same manifestations as Alzheimer's: it begins with behavioral and personality changes, followed by loss of inhibitions and irritability, before moving on to dementia. And C.T.E. appears later in life as well, because it takes a long time for the initial trauma to give rise to nerve-cell breakdown and death. But C.T.E. isn't the result of an endogenous [*internal / tissue-based*]disease. It's the result of injury. The patient, it turned out, had been a boxer in his youth. He had suffered from dementia for fifteen years because, decades earlier, he'd been hit too many times in the head.

. . . So now that McKee had seen two cases, in short order, she began to wonder: how many people who we assume have Alzheimer's—a condition of mysterious origin—are actually victims of preventable brain trauma?

McKee linked up with an activist named Chris Nowinski, a former college football player and professional wrestler who runs a group called the Sports Legacy Institute, in Boston. In his football and wrestling careers, Nowinski suffered six concussions (that he can remember), the last of which had such severe side effects that he has become a full-time crusader against brain injuries in sports. Nowinski told McKee that he would help her track down more brains of ex-athletes.

Nowinski found her another ex-football player. McKee saw the same thing. She has now examined the brains of sixteen ex-athletes, most of them ex-football players. Some had long careers and some played only in college. Some died of dementia. Some died of unrelated causes. Some were old. Some were young. Most were linemen or linebackers, although there was one wide receiver. In one case, a man who had been a linebacker for sixteen years, you could see, without the aid of magnification, that there was trouble: there was a shiny tan layer of scar tissue, right on the surface of the frontal lobe, where the brain had repeatedly slammed into the skull. It was the kind of scar you'd get only if you used your head as a battering ram. You could also see that some of the openings in the brain were larger than you'd expect, as if the surrounding tissue had died and shrunk away.

The other major researcher looking at athletes and C.T.E. is the neuropathologist Bennet Omalu. He diagnosed the first known case of C.T.E. in an ex-N.F.L. player back in September of 2002, when he autopsied the former Pittsburgh Steelers center Mike Webster. He also found C.T.E. in the former Philadelphia Eagles defensive back Andre Waters, and in the former Steelers linemen Terry Long and Justin Strzelczyk, the latter of whom was killed when he drove the wrong way down a freeway and crashed his car, at ninety miles per hour, into a tank truck. Omalu has only once failed to find C.T.E. in a professional football player, and that was a twenty-four-year-old running back who had played in the N.F.L. for only two years.

"There is something wrong with this group," Omalu says. "They forget things. They have slurred speech. I have had an N.F.L. player come up to me at a funeral and tell me he can't find his way home. I have wives who call me and say, 'My husband was a very good man. Now he drinks all the time. I don't know why his behavior changed.' I have wives call me and say, 'My husband was a nice guy. Now he's getting abusive.' I had someone call me and say, 'My husband went back to law school after football and became a lawyer. Now he can't do his job. People are suing him.' "

. . . [Back to Ann McKee] There's one last thing," she said. She pulled out a large photographic blowup of a brain-tissue sample. "This is a kid. I'm not allowed to talk about how he died. He was a good student. This is his brain. He's eighteen years old. He played football. He'd been playing football for a couple of years." She pointed to a series of dark spots on the image, where the stain had marked the presence of something abnormal. This was a teen-ager, and already his brain showed the kind of decay that is usually associated with old age. "This is completely inappropriate," she said. "You don't see this in an eighteen-year-old. You don't see this in a fifty-year-old."

McKee is a longtime football fan. She is from Wisconsin. She had two statuettes of Brett Favre, the former Green Bay Packers quarterback, on her bookshelf. On the wall was a picture of a robust young man. It was McKee's son—nineteen years old, six feet three. If he had a chance to join the N.F.L., I asked her, what would she advise him? "I'd say, 'Don't. Not if you want to have a life after football.' "

Football faced the question of injuries a hundred years ago, after a series of ugly incidents. In 1905, President Theodore Roosevelt called an emergency summit at the White House, alarmed, as the historian John Sayle Watterson writes, "that the brutality of the prize ring had invaded college football and might end up destroying it." Columbia University dropped the sport entirely. A professor at the University of Chicago called it a "boy-killing, man-mutilating, money-making, education-prostituting, gladiatorial sport." In December of 1905, the presidents of twelve prominent colleges met in New York and came within one vote of abolishing the game. But the main objection at the time was to a style of play—densely and dangerously packed offensive strategies—that, it turns out, could be largely corrected with rule changes, like the legalization of the forward pass and the doubling of the first-down distance from five yards to ten. Today, when we consider subtler and more insidious forms of injury, it's far from clear whether the problem is the style of play or the play itself.

Take the experience of a young defensive lineman for the University of North Carolina football team, who suffered two concussions during the 2004 season. His case is one of a number studied by Kevin Guskiewicz, who runs the university's Sports Concussion Research Program. For the past five seasons, Guskiewicz and his team have tracked

every one of the football team's practices and games using a system called HITS, in which six sensors are placed inside the helmet of every player on the field, measuring the force and location of every blow he receives to the head. Using the HITS data, Guskiewicz was able to reconstruct precisely what happened each time the player was injured.

"The first concussion was during preseason. The team was doing two-a-days," he said, referring to the habit of practicing in both the morning and the evening in the preseason. "It was August 9th, 9:55 A.M. He has an 80-g hit to the front of his head. About ten minutes later, he has a 98-g acceleration to the front of his head." To put those numbers in perspective, Guskiewicz explained, if you drove your car into a wall at twenty-five miles per hour and you weren't wearing your seat belt, the force of your head hitting the windshield would be around 100 gs: in effect, the player had two car accidents that morning. He survived both without incident. "In the evening session, he experiences this 64-g hit to the same spot, the front of the head. Still not reporting anything. And then this happens." On his laptop, Guskiewicz ran the video from the practice session. It was a simple drill: the lineman squaring off against an offensive player who wore the number 76. The other player ran toward the lineman and brushed past him, while delivering a glancing blow to the defender's helmet. "Seventy-six does a little quick elbow. It's 63 gs, the lowest of the four, but he sustains a concussion."

"The second injury was nine weeks later," Guskiewicz continued. "He's now recovered from the initial injury. It's a game out in Utah. In warmups, he takes a 76-g blow to the front of his head. Then, on the very first play of the game, on kickoff, he gets popped in the earhole. It's a 102-g impact. He's part of the wedge." He pointed to the screen, where the player was blocking on a kickoff: "Right here." The player stumbled toward the sideline. "His symptoms were significantly worse than the first injury." Two days later, during an evaluation in Guskiewicz's clinic, he had to have a towel put over his head because he couldn't stand the light. He also had difficulty staying awake. He was sidelined for sixteen days.

When we think about football, we worry about the dangers posed by the heat and the fury of competition. Yet the HITS data suggest that practice—the routine part of the sport—can be as dangerous as the games themselves. We also tend to focus on the dramatic helmet-to-helmet hits that signal an aggressive and reckless style of play. Those kinds of hits can be policed. But what sidelined the U.N.C. player, the first time around, was an accidental and seemingly harmless elbow, and none of the blows he suffered that day would have been flagged by a referee as illegal. Most important, though, is what Guskiewicz found when he reviewed all the data for the lineman on that first day in training camp. He didn't just suffer those four big blows. He was hit in the head thirty-one times that day. What seems to have caused his concussion, in other words, was his cumulative exposure. And why was the second concussion—in the game at Utah—so much more serious than the first? It's not because that hit to the side of the head was especially dramatic; it was that it came after the 76-g blow in warmup, which, in turn, followed the concussion in August, which was itself the consequence of the thirty prior hits that day, and the hits the day before that, and the day before that, and on and on, perhaps back to his high-school playing days.

This is a crucial point. Much of the attention in the football world, in the past few years, has been on concussions—on diagnosing, managing, and preventing them—and on figuring out how many concussions a player can have before he should call it quits. But a football player's real issue isn't simply with repetitive concussive trauma. It's not just the handful of big hits that matter. It's lots of little hits, too.

That's why, Cantu says, so many of the ex-players who have been given a diagnosis of C.T.E. were linemen: line play lends itself to lots of little hits. The HITS data suggest that, in an average football season, a lineman could get struck in the head a thousand times, which means that a ten-year N.F.L. veteran, when you bring in his college and high-school playing days, could well have been hit in the head eighteen thousand times: that's thousands of jarring blows that shake the brain from front to back and side to side, stretching and weakening and tearing the connections among nerve cells, and making the brain increasingly vulnerable to long-term damage. People with C.T.E., Cantu says, "aren't necessarily people with a high, recognized concussion history. But they are individuals who collided heads on every play—repetitively doing this, year after year, under levels that were tolerable for them to continue to play."

But if C.T.E. is really about lots of little hits, what can be done about it? Turley says that it's impossible for an offensive lineman to do his job without "using his head." The position calls for the player to begin in a crouch and then collide with the opposing lineman when the ball is snapped. Helmet-to-helmet contact is inevitable. Nowinski, who played football for Harvard, says that "proper" tackling technique is supposed to involve a player driving into his opponent with his shoulder. "The problem," he says, "is that, if you're a defender and you're trying to tackle someone and you decide to pick a side, you're giving the other guy a way to go—and people will start running around you." Would better helmets help? Perhaps. And there have been better models introduced that absorb more of the shock from a hit. But, Nowinski says, the better helmets have become—and the more invulnerable they have made the player seem—the more athletes have been inclined to play recklessly.

"People love technological solutions," Nowinski went on. "When I give speeches, the first question is always: 'What about these new helmets I hear about?' What most people don't realize is that we are decades, if not forever, from having a helmet that would fix the problem. I mean, you have two men running into each other at full speed and you think a little bit of plastic and padding could absorb that 150 gs of force?"

Guskiewicz and his colleagues have come up with what they believe is a much better method of understanding concussion. They have done a full cognitive workup of the players on the U.N.C. team, so that they can track whatever effect might arise from the hits each player accumulates during his four years. U.N.C.'s new coach, Butch Davis, has sharply cut back on full-contact practices, reducing the toll on the players' heads. Guskiewicz says his data show that a disproportionate number of serious head impacts happen on kickoffs, so he wonders whether it might make sense, in theory, anyway, to dispense with them altogether. But, like everyone else who's worried about football, he still has no idea what the inherent risks of the game are. What if you did everything you could, and banned kickoffs and full-contact practices and used the most state-of-the-art techniques for diagnosing and treating concussion, and behaved as responsibly as Nascar has in the past several years—and players were still getting too many dangerous little hits to the head?

. . . Professional football players are selected for gameness. When Kyle Turley was knocked unconscious, in that game against the Packers, he returned to practice four days later because, he said, "I didn't want to miss a game." Once, in the years when he was still playing, he woke up and fell into a wall as he got out of bed. "I start puking all over," he recalled. "So I said to my wife, 'Take me to practice.' I didn't want to miss practice." The same season that he was knocked unconscious, he began to have pain in his hips. He received three cortisone shots, and kept playing. At the end of the season,

he discovered that he had a herniated disk. He underwent surgery, and four months later was back at training camp. “They put me in full-contact practice from day one,” he said. “After the first day, I knew I wasn’t right. They told me, ‘You’ve had the surgery. You’re fine. You should just fight through it.’ It’s like you’re programmed. You’ve got to go without question—I’m a warrior. I can block that out of my mind. I go out, two days later. Full contact. Two-a-days. My back locks up again. I had re-herniated the same disk that got operated on four months ago, and bulged the disk above it.” As one of Turley’s old coaches once said, “He plays the game as it should be played, all out,” which is to say that he put the game above his own well-being.

What football must confront, in the end, is not just the problem of injuries or scientific findings. It is the fact that there is something profoundly wrong in the relationship between the players and the game.

“Let’s assume that Dr. Omalu and the others are right,” Ira Casson, who co-chairs an N.F.L. committee on brain injury, said. “What should we be doing differently? We asked Dr. McKee this. And she was honest, and said, ‘I don’t know how to answer that.’ No one has any suggestions—assuming that you aren’t saying no more football, because, let’s be honest, that’s not going to happen.” Casson began to talk about the research on the connection between C.T.E. and boxing. It had been known for eighty years. Boxers ran a twenty-per-cent risk of dementia. Yet boxers continue to box. Why? Because people still go to boxing matches.

“We certainly know from boxers that the incidence of C.T.E. is related to the length of your career,” he went on. “So if you want to apply that to football—and I’m not saying it does apply—then you’d have to let people play six years and then stop. If it comes to that, maybe we’ll have to think about that. On the other hand, nobody’s willing to do this in boxing. Why would a boxer at the height of his career, six or seven years in, stop fighting, just when he’s making million-dollar paydays?” He shrugged. “It’s a violent game. I suppose if you want to you could play touch football or flag football. For me, as a Jewish kid from Long Island, I’d be just as happy if we did that. But I don’t know if the fans would be happy with that. So what else do you do?”

Casson is right. There is nothing else to be done, not so long as fans stand and cheer. We are in love with football players, with their courage and grit, and nothing else—neither considerations of science nor those of morality—can compete with the destructive power of that love.