

3rd - 5th Grade

STUDENT PLAYBOOK

and players are daunting. Every Saturday the
work is judged by tens of thousands of
reviewers on site, and millions more at
home. The physical and psychological
come on a never-ending assembly line of
film study, game planning, classes, recruit
and more. There's no magic formula, no sh
And forget about an off-season, because there
one. But when it's done well it produces
truly magical. A CHAMPION.

Wall of Fame cbhall.com

LEADERSHIP
ALL ACCESS PASS
Piedmont

**YOU HAVE BEEN
RECOGNIZED!**

Name

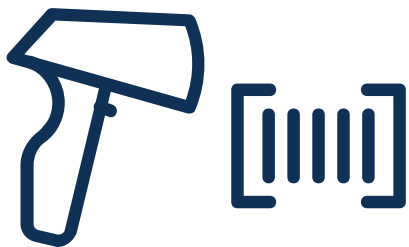
School

KICKOFF

- As you walk around, the building will recognize you by your All Access Pass! How do you think this happens?
- **Did you know?** In 1945, the Soviet Union presented a hand-carved ceremonial seal of the USA to the United States ambassador. Inside the seal was a device that is the predecessor to RFID (Radio Frequency Identification) technology. The ambassador checked the seal for bugs but found no wires or batteries. However, the device was a bug that transmitted voices to the Soviet Union. It hung in his office seven years before the device was discovered.

FIRST & 10

- When you enter the College Football Hall of Fame, you receive and register your All Access Pass. This allows the building to know who you are. The technology that allows this to happen is an RFID enabled badge. RFID stands for Radio Frequency Identification.
- The technology is similar to barcode scanners. Barcode scanners require a straight line to scan and can only scan one thing at a time.



- RFID can read multiple codes at the same time and they only need to be near the reader. They often read things that you may not notice like a toll tag on your car.

- Where else might you have encountered RFID technology?

- How might that device differ from the RFID at the College Football Hall of Fame?

- Discuss your thoughts and ideas with your friends or family.

- How are your ideas similar?

- How are your ideas different?

- How have your thoughts changed after your discussion with your friends or family?

- How do you think RFID technology has changed the world in good ways?

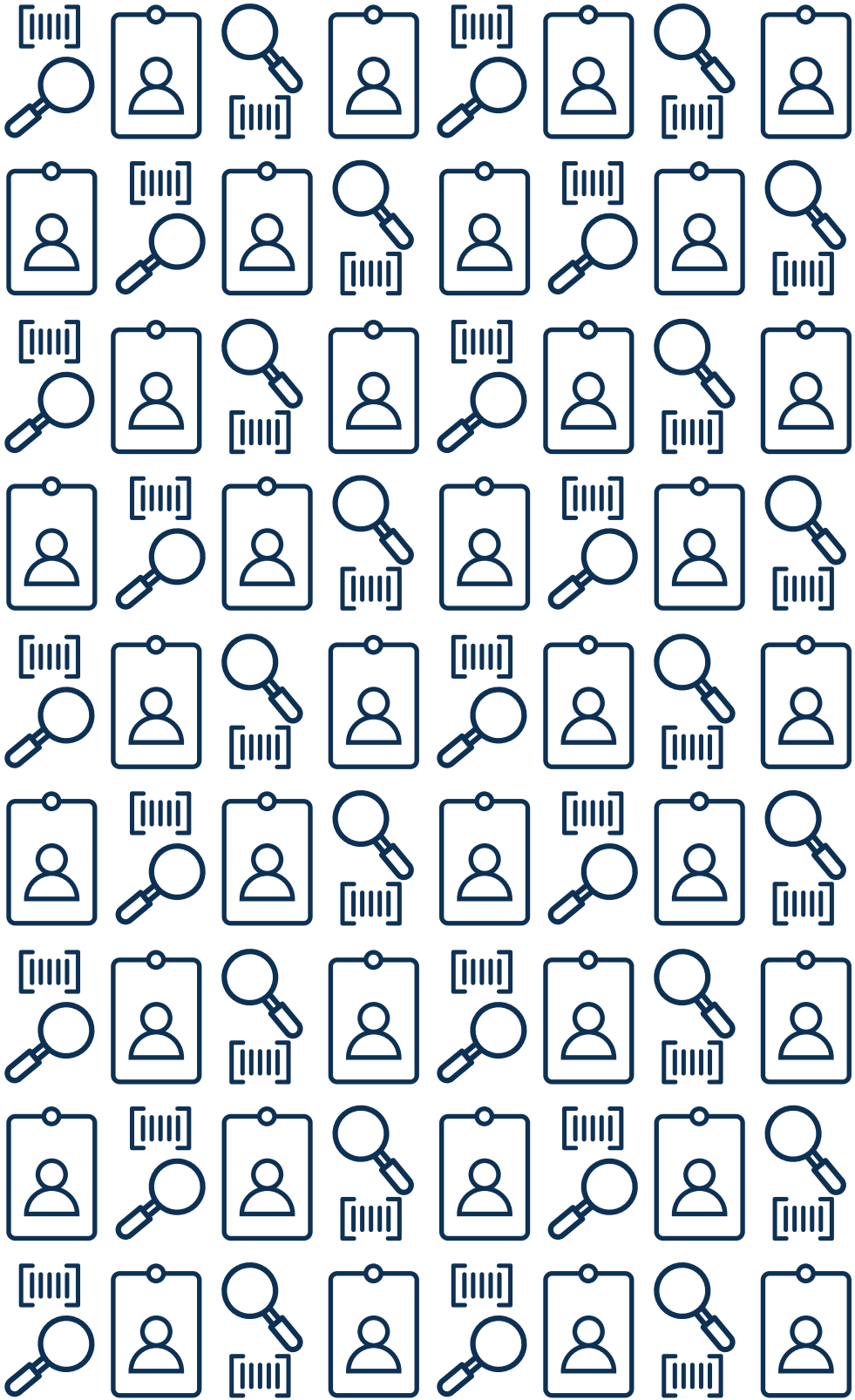
- What could be developed using RFID technology to help people?

- How do you think RFID technology could change the world in the future?

POST-GAME - KEEP EXPLORING!

- While you are moving about the building, use the space below to keep track of all the places where the building knows your name.

- After your day at the College Football Hall of Fame, notice places in your everyday life that could be enhanced with RFID technology. Brainstorm with a friend or family member about what you could create with RFID technology to make your lives better.





A BLIMP'S EYE VIEW

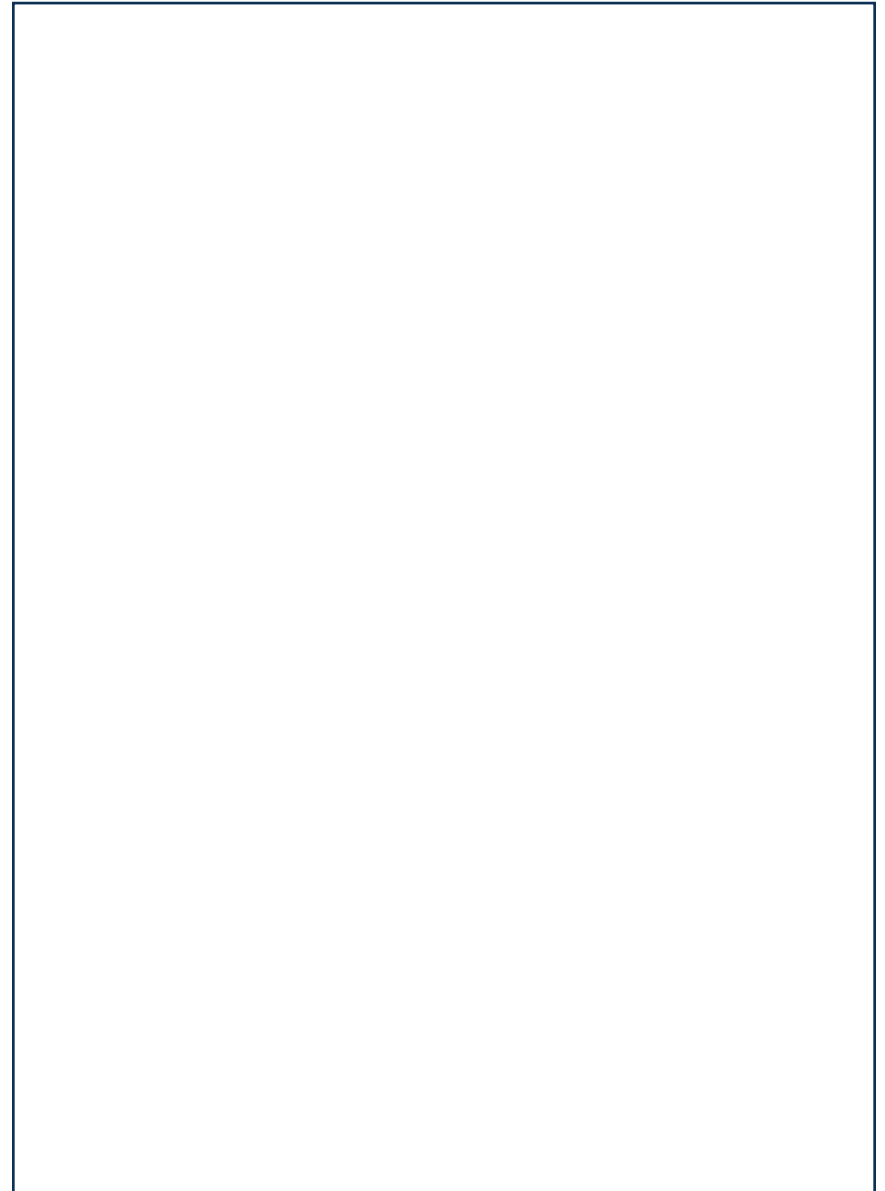
KICKOFF

- How does looking at a familiar object from a new perspective change the way we experience or think about it?
- **Did you know?** Blimps were created as a surveillance device used in World War II. Today, however, they are mostly used for overhead photography at sports events and as massive flying billboards.

FIRST & 10

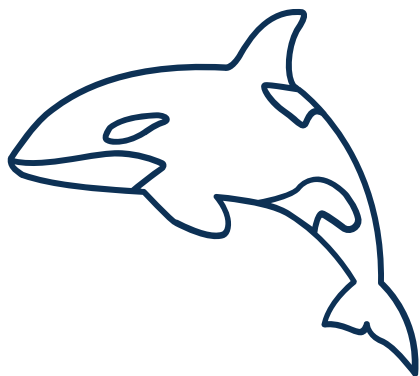
- Make your way to the Goodyear Blimp Experience located on the 2nd floor of the Hall.
- Take a moment to look around the airship. What do you notice? What is different from the inside of this exhibit and your car? A plane? A train?
- Next, sit in a seat and choose one of your favorite teams to view a video of the Goodyear Blimp flyover of their stadium. As you watch the flyover, think about the following questions:
 - ☐ What do you see on the football field?
 - ☐ What do you notice about the stadium from this perspective?
 - ☐ How is this perspective different from sitting inside the stadium? Can you see more or less? How does it change?
- The perspective that the blimp is filming from is often referred to as a “bird’s eye view”. As the name indicates, it refers to the way that a bird would see things as it flies over.
- Now, watch the flyover again and pay close attention to the way the end zones are painted. How would you change the look of the football field from the bird’s eye view to make it more interesting?

- Below, draw a sketch of how you would design the football field using a bird’s eye view, particularly the end zones. Determine the home team for the field. What will you include in your design to ensure anyone flying over will recognize the home team? Also, think about what kind of design would be particularly “eye” catching.

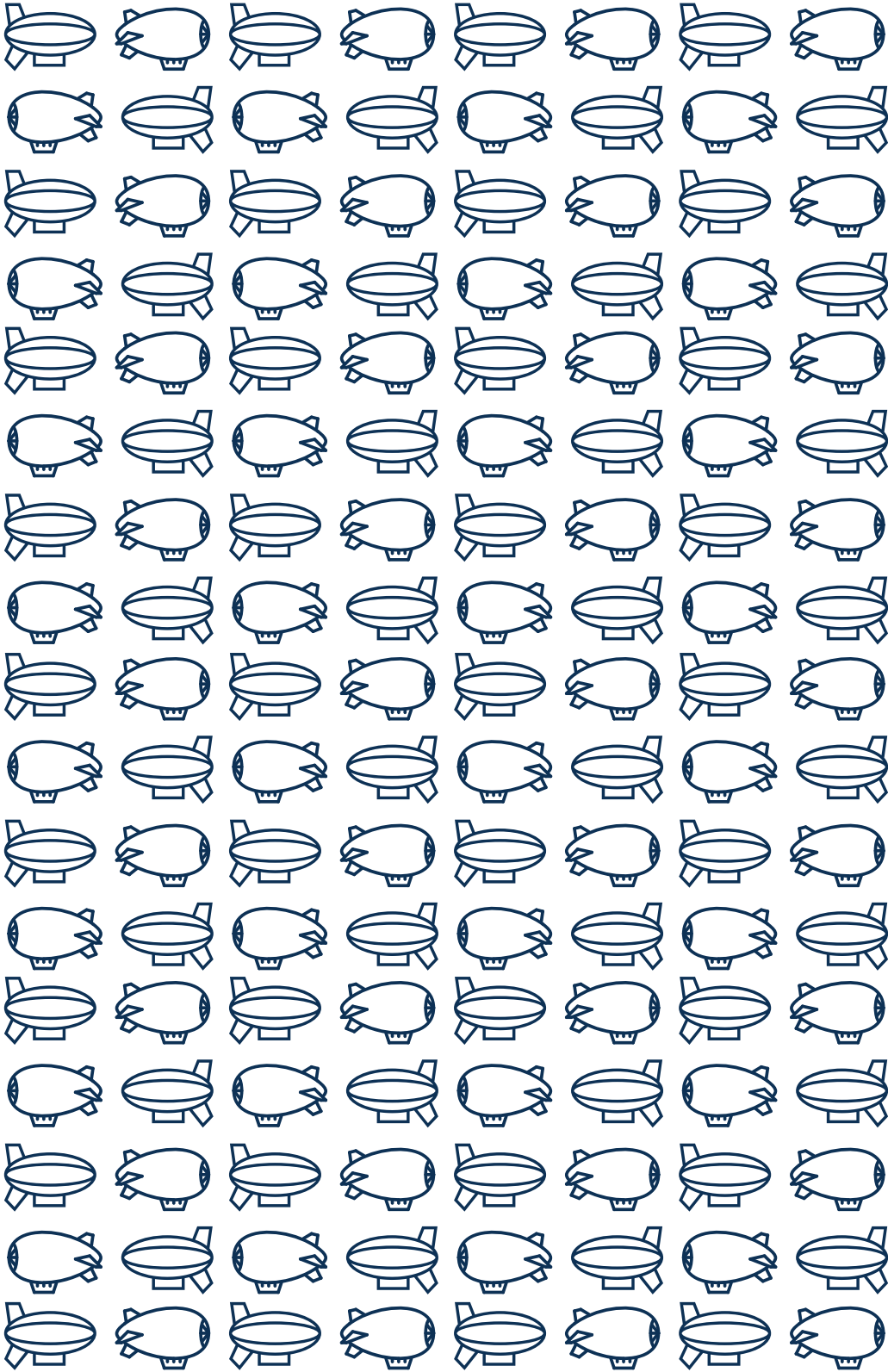


POST-GAME - KEEP EXPLORING!

- Notice how the shape of the blimp resembles an orca, also known as a killer whale. The blimp, like an orca, has fins on both sides that help it move in certain directions.



- What would happen if the blimp had a fin on only one side? How would it change the way the pilot steers its direction?





PUT A LID ON IT

The Science of Helmet Design

KICKOFF

- What is the purpose of wearing a helmet?
- What design features make a helmet effective?
- How does a helmet mimic structures found in nature?

FIRST & 10

- Proceed to The Evolution of Equipment on the 2nd floor.

HEADFIRST

- **Did you know?** The brain inside your head is like a computer. It uses and stores a lot of important information all day, every day. Thankfully, our brains are protected by bones called the skull. In football, players wear helmets to protect their skull.
 - Why is it a good idea for football players to wear helmets?
-

MAKING AN IMPACT

- **Did you know?** When two objects collide, they hit each other while in motion.

Draw an example of two objects colliding. It could be related to football but does not have to be! Use arrows to show direction.

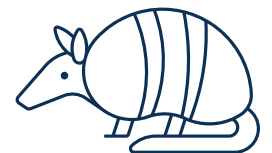
THE EVOLUTION OF FOOTBALL HELMETS

- **Did you know?** Helmets did not always look the way they do today. The first football “helmet” was made of simple leather straps with flaps that hung down to cover the player’s ears.

What do you think football helmets will look like years from now?
Draw it here!

LET’S GET WILD!

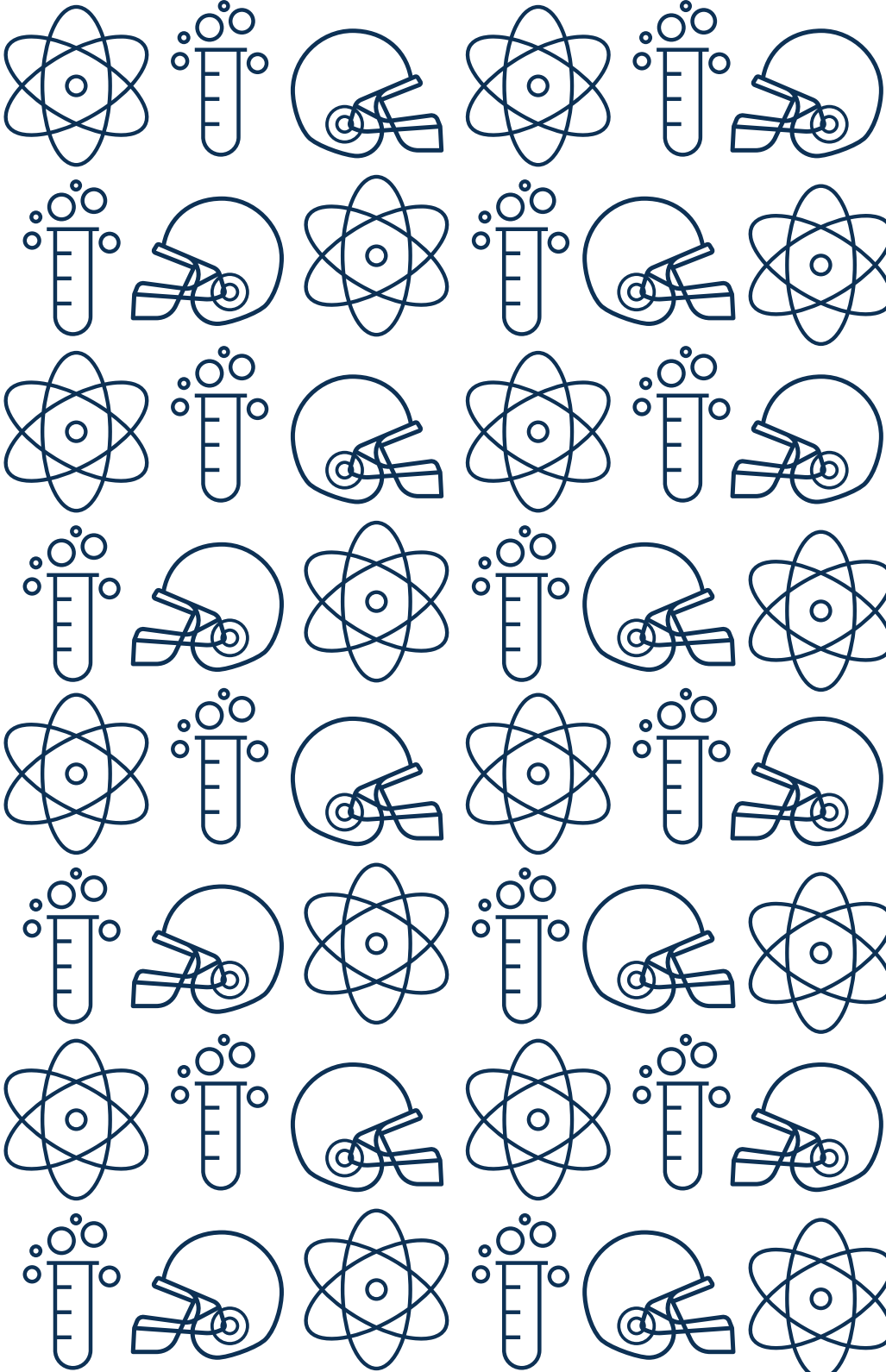
- **Did you know?** Humans gain a lot of design ideas from organisms in nature. The sweaters and coats we wear mimic animal fur to keep us warm. The straws we use for drinking mimic long, narrow bird beaks. The flippers we wear on our feet when we go swimming mimic fish fins.
- In what ways is a helmet similar to the body of an armadillo?



POST-GAME - KEEP EXPLORING!

Football players will sometimes have stickers or decals on their helmets that they wear during games. Those stickers aren't just for decoration – they usually have a special meaning. For some players, the stickers represent individual or team accomplishments. Other times, they represent a cause the player might feel strongly about. Without knowing the player, viewers are able to understand something about them through the stickers.

If you were going to be in front of hundreds of viewers, what would you want them to know about you by looking at the stickers on your helmet? Draw a helmet complete with the images that you would want on it while playing on the field. Ask your friends or family to do the same and compare what each of you chose to add to your helmets. And, the next time that you watch a football game, look to see if any of the players have stickers on their helmets and try to guess what they might represent!





U.S. AIR FORCE

AIR RAID

VR FOOTBALL EXPERIENCE

The U.S. Air Force presents an immersive, fully responsive QB simulator that puts you in the middle of the game to see if you have what it takes to get the ball to your wide receiver before you get sacked!



Powered By

SPORTS VTS
VIRTUAL TRAINING. REAL RESULTS.

RIGHTIES VS.
LEFTIES



KICKOFF

- Are there differences between right handed and left handed people?
- **Did you know?** Kangaroos and parrots are left handed? Most kangaroos groom themselves and eat with their left paw. Most parrots use their left claw to pick up things.

FIRST & IO

- Make your way to the Air Force Air Raid on the 2nd floor of the College Football Hall of Fame. This is an AI (Artificial Intelligence) system that is used by college teams, so you will experience how some players prepare for games.
- Sign up to participate in the Air Force Air Raid Experience.
- While you are waiting your turn, watch others play and make tally marks for each player in the following table.
 - ☐ If the ball is thrown near the center, it would be close to a right angle.
 - ☐ If the ball is thrown to the left, it would be an acute angle.
 - ☐ If the ball is thrown to the right, it would be an obtuse angle.

Right handed	
Left handed	
Right angle (center)	
Acute angle (to the left)	
Obtuse angle (to the right)	

Graph the data using a bar graph.

Graph the data using a picturegraph.

- Add the right handed and left handed people together to get the total number of people. Use that and the tally marks from your table to find the following:

- Find the fraction of people that were right handed.

- Find the fraction of people that were left handed.

- Were there more right handed or left handed people?

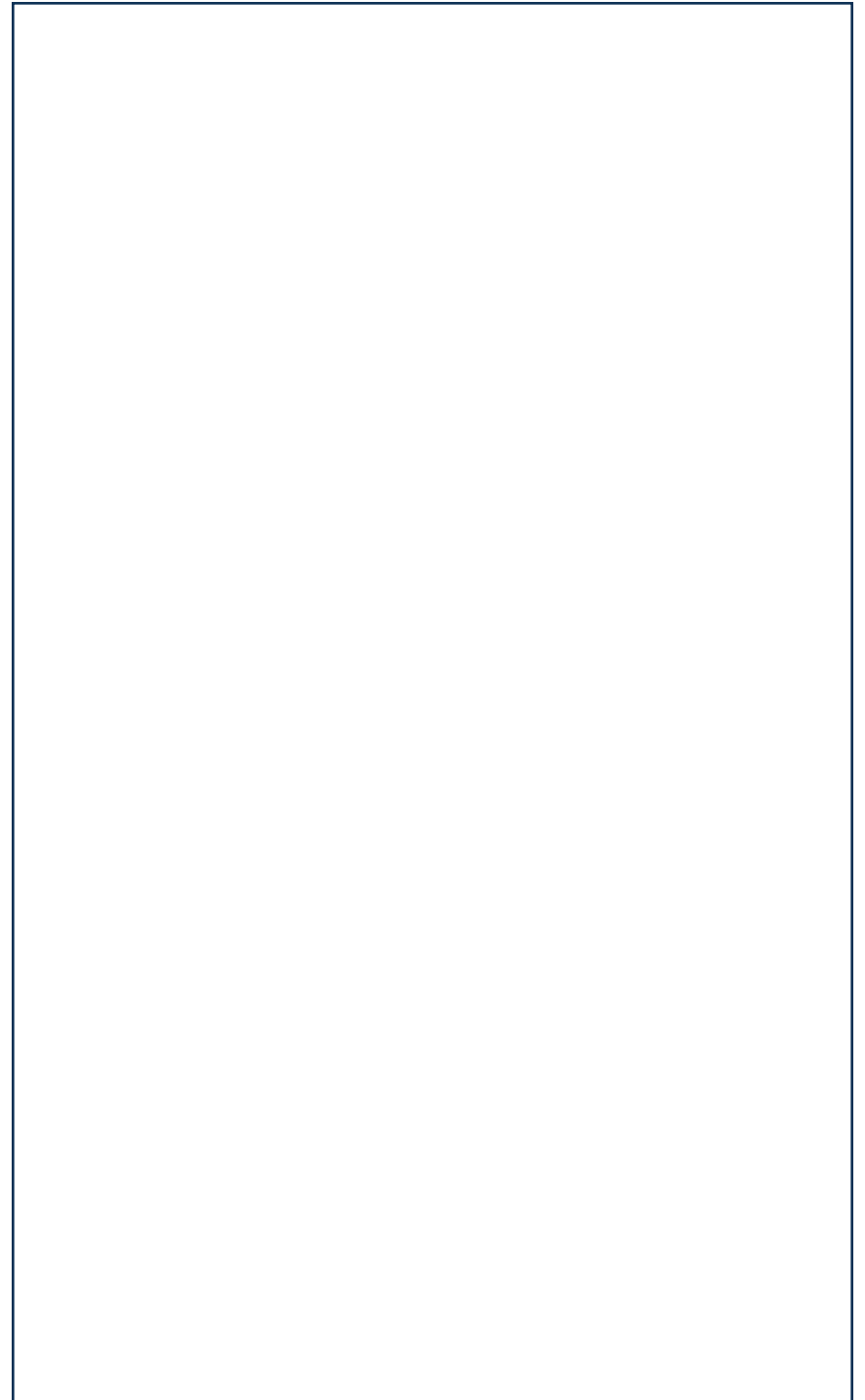
- In which direction was the ball thrown most?

- What are the patterns you notice?

- What hypothesis can you make from the data you collected?

POST-GAME - KEEP EXPLORING!

- Have you ever tried to do a task with your non-dominant hand? On a piece of paper, draw an object with your dominant hand. Then, draw the same object with your non-dominant hand. Work up to larger drawings. Although it is much harder with your non-dominant hand, sometimes you can unintentionally create some very interesting lines and shapes.



PERFORMANCE CHALLENGE

PERFORMANCE CHALLENGE

DO YOU HAVE WHAT IT TAKES?

Now is your chance to put yourself through two of the same challenges that NFL hopefuls experience every year. How fast can you run? How high can you jump?

Like Kia, show off your power and speed. Try the vertical jump and 40-yard dash to see how you measure up.

VERTICAL JUMP

RUN, JUMP, PLAY

ARE YOU READY
TO JUMP?

STEP ON
THE FLOOR
MAT

GIVE IT EVERYTHING

KICKOFF

- How do various types of exercise impact your body's systems?

FIRST & 10

WARM UP

- Find the Kia Performance Challenge on the 2nd floor.
 - **Did you know?** Athletes learn from their coaches and trainers to “warm up” before a workout. You might even notice them stretching their legs and arms on the sidelines of the field before a big game. Preparing their muscles in this way helps prevent injuries.
 - What are some other ways athletes prepare their bodies for an important game? (Hint: What might they eat or drink? How much sleep might they get?)
-

FANTASTIC ELASTIC

- **Did you know?** When you pull a rubber band, the material contracts (gets tight); when you let it go, it releases (gets loose). The muscles in your body are like rubber bands: they contract and release.
 - As you complete the Vertical Jump, at what point do your leg muscles contract? When do they release?
-

PUMP UP THE VOLUME

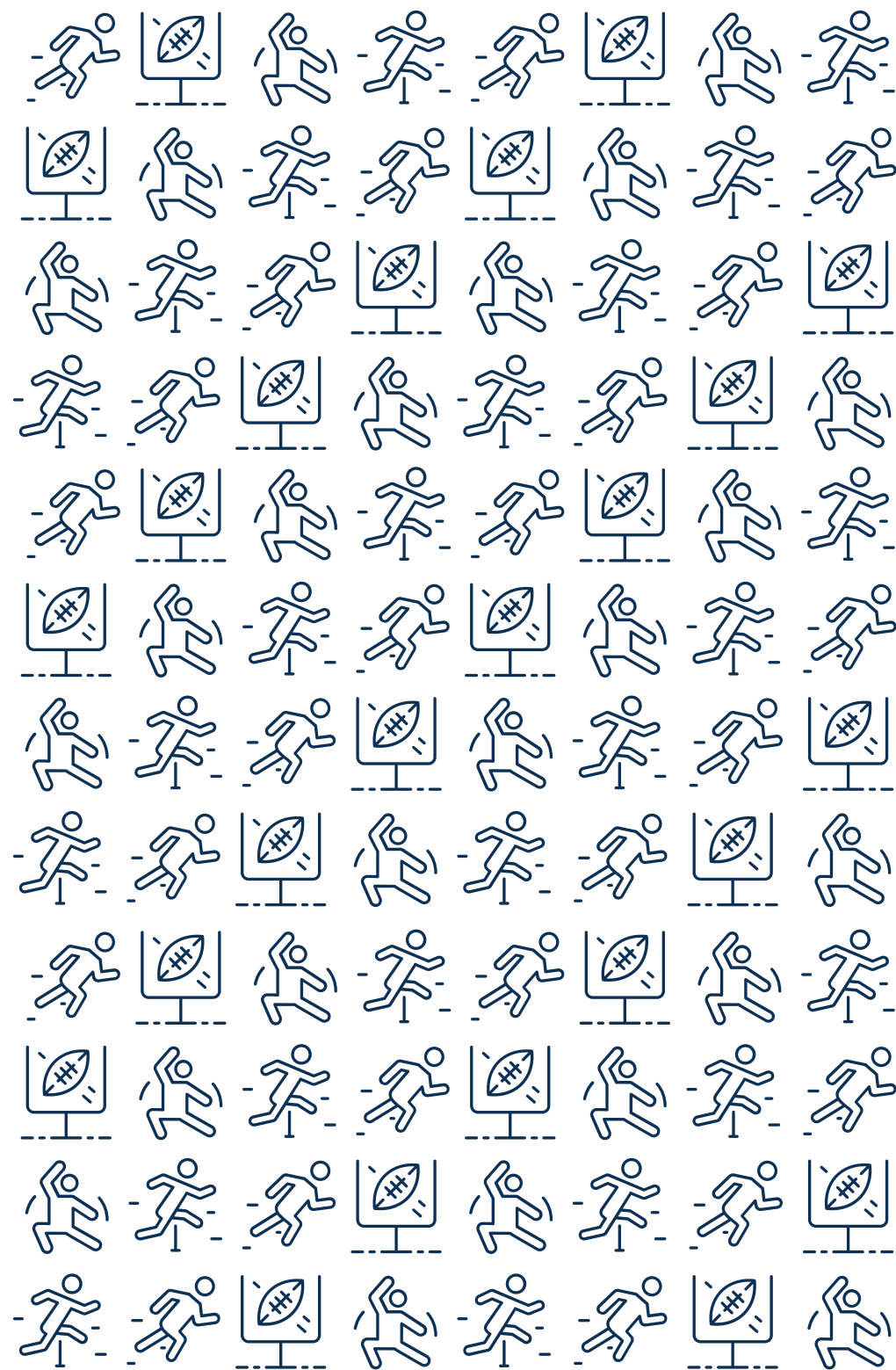
- **Did you know?** Your heart, which is part of the cardiovascular system, pumps faster when your body needs blood delivered more quickly to all its cells. When you sit or stand still, your heart is pumping -- but not as fast as it does when you move around.
 - Does your heart beat faster before or after you complete the 40-Yard Dash? Why?
-

NO SWEAT

- **Did you know?** Humans cool down their own bodies by sweating. That's when your skin pushes out heat in liquid form through little holes called pores. Dogs and cats sweat a little through their paws, but they mostly cool off by panting (sticking out their tongue to push hot air out and bring cool air in).
 - If you don't wipe off sweat from your skin, what eventually happens to it? Where does it go?
-

POST-GAME - KEEP EXPLORING!

- How do you think artists create the illusion of objects, or bodies in motion in drawings? One of the simple tricks that they use is simply adding lines behind the object as shown in this example with a ball. Practice drawing this ball using motion lines, and then move on to bigger things, such as a car or a figure.





THE ULTIMATE FOOTBALL PLAYER

KICKOFF

- What characteristics and strengths would it take to create the ultimate football player – one who could qualify for the College Football Hall of Fame with stats from multiple positions?
- **Did you know?** More than 5.1 million people have coached or played the game and less than 1,300 have been inducted into the Football Hall of Fame!

FIRST & 10

- Make your way to the 3rd Floor of the Hall. There you will find the name of every player and coach that has been inducted into the Hall of Fame. Additionally, there are twelve touchscreen stations where you can look up all of the Hall of Fame players and coaches to find in depth stories, videos and stats.
- Take a moment to glance through the names on the wall. These are the best of the best – the elite few that have been chosen from millions of players to represent the top tier. What do you think it takes to be inducted into such an elite group of athletes?
- Those that are chosen to be inducted into the College Football Hall of Fame must meet specific guidelines before even being considered. They include:
 1. A player must have received First Team All-America recognition by a selector organization that is recognized by the NCAA and utilized to comprise their consensus All-America teams.
 2. A player becomes eligible for consideration after their final year of intercollegiate football.

3. **While each nominee's football achievements in college are of prime consideration, their post football record as a citizen is also weighed.** They must have proven themselves worthy as a citizen, carrying the ideals of football forward into their relations with their community. Consideration may also be given for academic honors and whether the candidate earned a college degree.
 4. Players must have played their last year of intercollegiate football within the last 50 years. In addition, players and coaches who are participating on the professional level are not eligible until after they retire.
 5. A coach becomes eligible three years after retirement, or immediately following retirement provided they are at least 70 years of age. Active coaches become eligible at 75 years of age. They must have been a head coach for a minimum of 10 years and coached at least 100 games with a .600 winning percentage.
- Now that you know the qualifications, take time to look through some of the players' information on the touch screens. Choose your favorite team and find the inductees from that team. What positions did they play? What do they have in common? How are they different?
 - On the following pages, you will create the "ultimate" football player. This player will have all the strengths and characteristics that it takes to play the following positions at a level that would meet the standards for the Hall of Fame.

Quarterback: As the leader of the team, the quarterback decides what plays will be called and signals the plays to the other players. After receiving the ball from the center, they either hand off the ball to the running back, throw it to a receiver or run with the ball. Important attributes for a quarterback include the ability to throw the ball far and accurately, as well as think on their feet and react quickly when a play doesn't go as planned.

Running Back: This player's job is to run with the football toward the end zone to score a touchdown. Running backs are also referred to as tailbacks, halfbacks and rushers. A running back needs to be able to run fast and maneuver quickly to dodge tackles.

Wide Receiver: The successful wide receiver moves quickly past defenders to catch the football and run as far as possible toward the end zone. Wide receivers must have good hands to catch the passes thrown to them by the quarterback and speed to elude defenders.

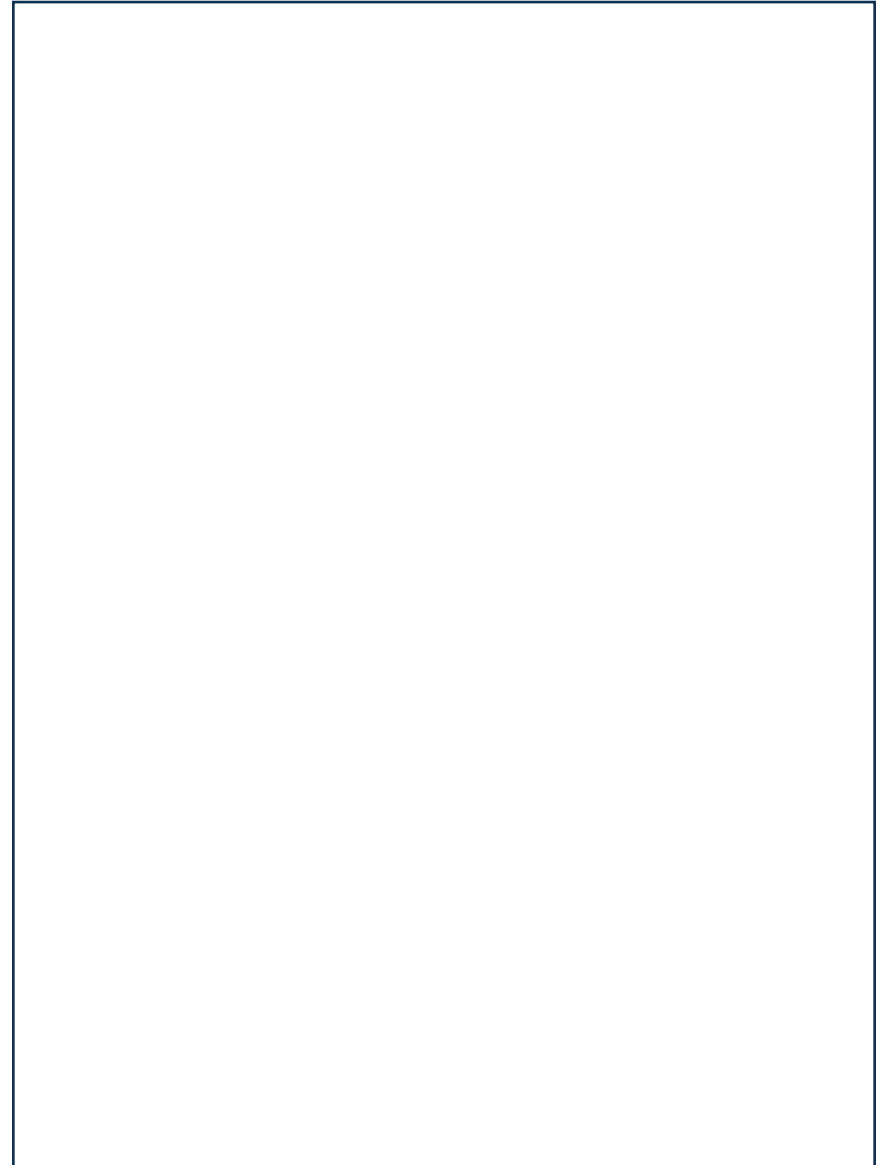
Defensive Lineman: The main job of the defensive lineman is to keep the other team from scoring. Depending on their position in the line, they work to overcome offensive blocking, pressure the opposing team's quarterback, disrupt the offense's backfield formation, and stop running plays by tackling the ball carrier or pushing them out-of-bounds. Linemen need to be big, strong and powerful.

Linebacker: Linebackers can have a wide range of duties as they defend against both running and passing plays. They are required to be all-around athletes with strength and speed so they can stop ball carriers, chase down the opponent's quarterback, and cover fast-running wide receivers.

Secondary: Players in the secondary defense such as the safety and cornerback provide the last line of defense against the opposing team's end zone. Positioned deep and wide on the field, defensive backs must be fast, tough and outstanding tacklers.

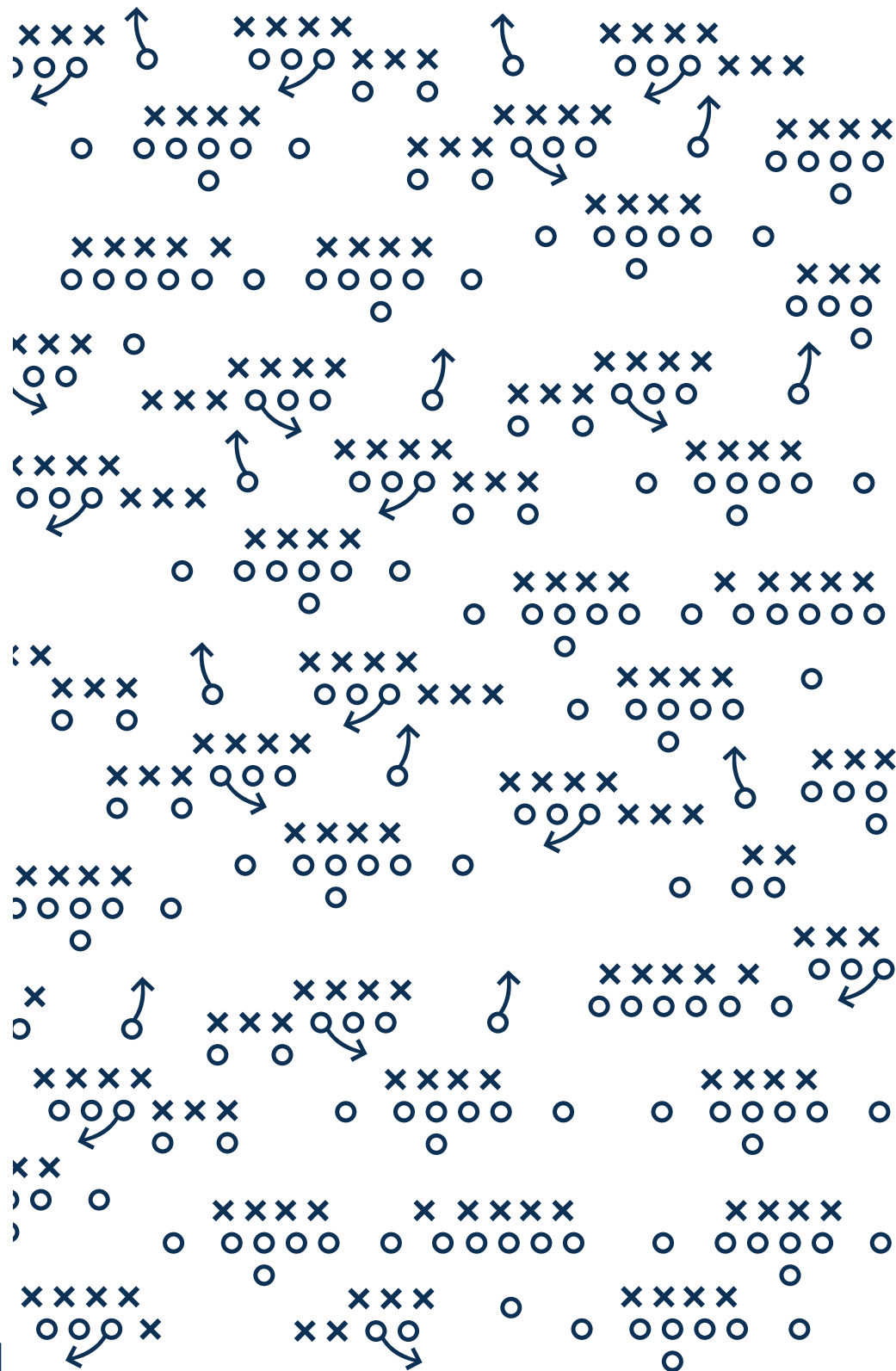
On the next page, draw your "ultimate" football player who could dominate the six positions above. What physical qualities would they need to have? What about characteristics that you can't see, but should possess?

Once you have drawn your player, write out the characteristics and qualities that your player has. Then, write 1-2 sentences explaining how those qualities would come together to create the ultimate football player. Don't forget to describe the type of person that they are, because in order to be in the Hall of Fame, players must also have a proven record of being a good citizen both on and off the field.



POST-GAME - KEEP EXPLORING!

- Nutrition and exercise are extremely important for all of us, and especially for professional athletes. Imagine putting soda in the tank of a car instead of gasoline: the automobile won't work very well, will it?
- What kind of food should an "ultimate player" eat? What type of exercise should they do regularly and with what frequency?



NOTES, THOUGHTS & SKETCHES

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