

Introduction to Baseball

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Baseball

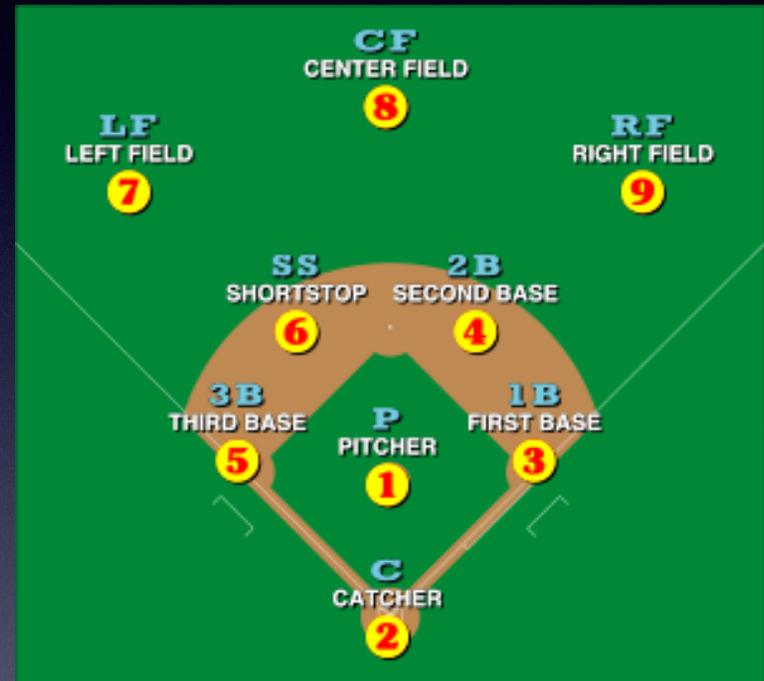
- A subtle and complicated game for two teams
- Rulebook is 136 pages long!
- Played widely in USA, Canada, Japan, Cuba, Dominican Republic, and some other countries
- Each team typically has 15-25 players, but only 9 defensive players and up to four offensive players are active at any one time.
- Substitutions are permitted during the game, but once a player leaves the game, he/she cannot return
- A game typically consists of nine “innings”
- In each inning each team takes a turn at offense and defense; these are “half-innings”
- Goal of the game is to score more “runs” than the other team at the end of the game.

Equipment

- The bat:
 - made of wood or aluminum
 - no more than 42 inches (110 cm) long
 - usually weights 33-36 ounces (0.94 to 1.0 kg)
- The ball:
 - 2.9 inches in diameter (7.3 cm)
 - cork or rubber center
 - wrapped with up to 1 mile (1.6 km) of yarn
 - cowhide cover
 - stitches enable complex aerodynamics
- The glove:
 - also called “mitt”
 - made of leather

The Field

- Field is divided into “infield” and “outfield”
- The infield is called a “diamond” because of its shape.
- The batter stands in front of the catcher and attempts, with a “bat”, to hit the ball thrown by the pitcher, and then run the bases
- The fielders (defense) try to catch the batted ball.
- There are four “bases”, called “first”, “second”, “third”, and “home”.
- All bases are square canvas bags, except home, which is pentagonal and flat
- Fences delimit the “outfield”, and are typically 250-400 feet (75-125m) from home



Defense

- There are nine defensive players on the field at any moment. They wear gloves.
- The pitcher throws the ball towards the batter
- The catcher catches it (if the batter has not hit it)
- “1st basemen”, “2nd basemen”, “3rd basemen” typically stand near their bases
- “shortstop” stands between 2nd and 3rd bases
- these four are called “infielders”
- “left fielder”, “center fielder”, “right fielder” stand further away from the batter and are called “outfielders”



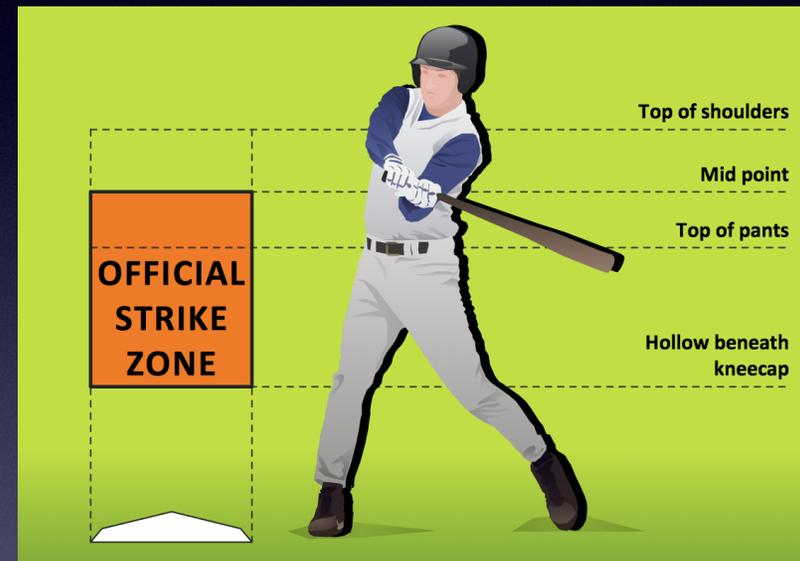
Offense (Batting)

- Nine players of offense take turns batting, according to order established at beginning of each game; after 9th, 1st bats again
- If the batter successfully hits the ball and it enters the quarter-plane defined by the diagonal lines that delimit the field, the ball is “fair” and “in play”
- Defensive players try to catch the ball and/or tag the runner, or the base
- If the batter successfully reaches a base without the ball caught or being tagged out, it is a “hit”



Balls and Strikes

- During an “at-bat”, the pitcher tries to throw the ball through a certain volume of air called the “strike zone”.
- The “strike zone” consists of a column of air with a pentagonal base above home plate, and between the batter’s armpits and knees.
- Two cases: batter swings the bat or doesn’t
 - Doesn’t swing: if the ball is thrown and touches the strike zone, it is a “strike”; otherwise it is a “ball”
 - Swings: if the ball is missed, it is a strike. If hit foul, it is a strike. If hit fair, it is “in play”.
- three strikes and the batter is out; four balls and the batter can go to first base (called a “walk”)



More About Batting

- If the batter hits the ball **outside** the quarter-plane, it is called “foul”
- A foul ball is considered a strike if there are less than 2 strikes; otherwise it does not count at all.
- If the batter hits a fair ball out of the stadium, it is a “home run” and he can run around the bases to score a run
- If the batter hits a fair ball that bounces over the wall, it is a “double” and the batter can go to 2nd base unhindered



Offense (Batting)

- Each half-inning consists of three “outs”
- An “out” occurs when a defensive player
 1. catches a batted ball in the air before it hits the ground (whether fair or foul), or
 2. fields a fair batted ball on the ground and tags the runner not standing on a base, or
 3. in some circumstances, tags the base the runner is trying to reach, or holds the ball while touching base with foot.
 4. As we said before, if a batter gets three strikes, he is out.

Pitching



- The pitcher stands 60 feet, 6 inches (18.4 meters) from the batter on a slightly elevated area called the “mound”
- He throws the ball at approximately 75 to 100 miles per hour (100 - 160 km/hour)
- There are many different types of pitches, but the three main ones are the “fast ball”, the “curve ball”, and the “change-up”
- Pitched ball reaches catcher in about 0.45 seconds, so batter must decide almost instantly whether to swing the bat or not.
- Starting pitcher typically pitches 5-8 innings; “relief pitchers” take over near end of game

Don't
ask me to
explain what
a “balk” is!

Running the Bases

- Once a batter successfully reaches a base without being “out”, he becomes a “runner”
- Bases are traversed consecutively in a counter-clockwise direction.
- A runner can stand on a base without being out.
- The opposite of being out is being “safe”; if runner is tagged with the ball while not standing on a base, he is “out”
- No more than one runner can occupy a base at any time
- If a batter hits a ball on the ground while a runner is standing on a base, the runner **must** run to the next base if all bases **in between** the batter and runner are occupied. Otherwise he is not forced to run, but can choose to do so.
- **If a runner is forced to run as above**, he is “out” if a defensive player with the ball tags him, tags the **base** in front of him before he reaches it, or holds the ball while touching the base with a foot.
- Otherwise the runner himself has to be tagged with the ball (or with a glove holding the ball)

Scoring Runs

- If a runner makes it all the way around the bases and then reaches home, it is a “run”
- Goal of the game is to score more runs than the other team
- Games end in 9 innings, except if score tied after 9
- If game is tied after 9 innings, the game goes to “extra innings” until the tie is resolved
- longest major league game was 26 innings in 1920

Other Rules

- If pitcher hits the batter with the ball, batter can advance to first base (“hit batsman”).
- Runners can “steal” bases, which means advancing to the next base without being tagged out.
- Multiple outs can be made on the same play, so people speak of “double play” and “triple play”, which means two (resp., three) outs
- If a ball is caught in the air, a runner can try to advance to the next base, but only **after** the instant of the catch
- Running to first after batting is an exception to the “you are out if you are tagged while off the base” rule; runners can run *past* first without being tagged out *provided* they turn right after passing the base

Sliding

- Runners advancing to the next base are faced with a dilemma: they have to get to the next base quickly to avoid being out, but they cannot “overrun” the base (because only *on* a base are you “safe”).
- To solve this problem, runners must decelerate quickly
- This is done with a “slide”: runners use friction between the ground and their legs to slow down



Bunting

- In some cases good strategy says to just barely hit the ball
- the goal is to advance a runner to the next base at the possible cost of being out yourself
- this is called a “sacrifice”
- when a batter “chokes up” on the bat and hits it softly, it is a “bunt”
- another rule exception: a foul bunt on the 2d strike is an out



Statistics

- Balls and strikes are reported in that order, called the “count”. A count of “3 and 2” means 3 balls and 2 strikes.
- The scoreboard records the score in each inning, and sometimes the total of runs, hits, and “errors” (mistakes made by the teams)
- Batting average records number of hits divided by number of times at bat; a good average is 0.300 (read as “three hundred”)

BALL 2 STRIKE 1 OUT 2										
FAIR-PLAY by TRANSLUX	1	2	3	4	5	6	7	8	9	TOTAL
VISITOR	1	0	2	0	0	2	0	1	0	6
HOME	2	0	2	0	2	1	1	2		10

Other Participants

- **Manager:** person who runs the team, decides order of batters, who will pitch, when to substitute players
- **Umpires:** people who rule on balls and strikes and whether batters and runners are out or safe; can eject unruly players
 - Umpire has various gestures to denote strikes, outs, fair or foul, and safe.
- **Coaches:** stand outside fair area and tell runners whether to advance to the next base or stop where they are.



Organized Baseball

- In North America, two major leagues, American and National
- Each league has three divisions
- Each division has 5 teams
- For example, the Toronto Blue Jays play in the Eastern Division of the American League
- Team that has most wins in a division (after 162-game season) advances to playoffs
- Final playoffs pit winner of American League against winner of National League, and is called the “World Series”

Organized Baseball

- There are also “minor” leagues that serve to recruit and train players for the majors
- Only about 10% of all minor league players advance to the “majors”
- “Semi-professional” or “semi-pro” teams consist of players that are typically not paid, although their expenses may be paid
- The **Kitchener Panthers** are an independent semi-pro minor league team in the Intercounty Baseball League. They were founded in 1919.

League Standings

INTERCOUNTY BASEBALL					
TEAM	W	L	WPCT	GB	L10
Barrie Baycats	15	3	0.833	0	9-1
Kitchener Panthers	13	4	0.765	1.5	7-3
Brantford Red Sox	11	8	0.579	4.5	5-5
Toronto Maple Leafs	9	8	0.529	5.5	5-5
London Majors	9	8	0.529	5.5	2-8
Burlington Bandits	6	11	0.353	8.5	5-5
Hamilton Cardinals	6	14	0.300	10	3-7
Guelph Royals	2	15	0.118	12.5	1-9