

Curriculum Sample
"Square One"

Square One: Lesson I

Board Basics and Coordinates

Objectives: Students will be introduced to the chess board.

Students will understand and show horizontal, vertical and diagonal directions.

Students will learn the correct way to position the chess board.

Students will be able to name the coordinates on the chess board.

Materials: Student chess folders with copies of Chess Board Pattern Activity handouts

(partially filled-in boards), chess demonstration board, *Chess Rules for Students* by John Bain, three crayons/colored pencils per student, and a

pencil for each student.

Vocabulary: Vertical - lines that go up and down (later learned as "files")

Horizontal - lines that go across (later learned as "ranks")

Diagonal - lines that slant from one side to another

Coordinate - a number and letter set that together describe the exact position of something such as a place on a map

Intersection - the place or point where two lines cross each other

Introduction to the Game of Chess:

Chess is one of the oldest skill games in the world. The game of chess dates back to the sixth century AD. Some people believe chess could have been invented as far back as the fourth century BC. Exactly when and where chess was invented is unknown. Chess is thought to have started in India or Persia. The game then spread to the Arab world, and eventually to Europe by the tenth century. Two players play the game of chess with a chess board.

Special Chess Board Pattern:

The chess board is a large square divided into 64 smaller squares. There is a special pattern to the chess board. The squares alternate light-dark-light-dark...



Student Practice Activity 1

Ask students to get out the partially colored-in First Move^{TM} Chess Board Pattern Activity handout from their student chess folders (see next page). The students will finish the pattern using a pencil or crayon for the dark squares.

Explain that the chess board pattern moves in a snakelike fashion. The pattern begins in the upper left corner and goes across to the right, then down and across to the left, then down and across to the right, etc.

The students will each have a complete chess board when they are finished coloring in the dark squares. Ask the students to count the number of light squares and count the number of dark squares (32 each = 64 total squares).

You may want to challenge the students by asking how many different sizes of squares they can find on the chess board. This can be a 1×1 (64), 2×2 (49), 3×3 (36), 4×4 (25), 5×5 (16), 6×6 (9), 7×7 (4), or 8×8 (1), making a total of 204 squares.

NOTE: Some teachers find that using different sized squares cut out of construction paper helps the students identify the squares of the chess board.

Vertical, Horizontal, and Diagonal Lines:

Vertical lines are lines that go up and down. Write the word "vertical" vertically on the board. Model vertical lines with one arm pointed up and one arm pointed down.

Horizontal lines are lines that go across. Write the word "horizontal" horizontally on the board. Model horizontal lines with your arms extended outward.

Diagonal lines are lines that slant from one side to another. Write the word "diagonal" diagonally on the board. Model with left arm slanted up and right arm slanted down.



Extra Student Practice Activity

Have the students stand up and practice making vertical, horizontal, and diagonal lines with their arms.

Chess Board Pattern Activity

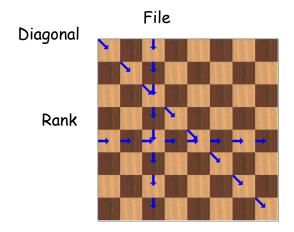
Color in the rest of the chess board following the patterns shown below:

Files and Ranks:

Explain that the chess board has special names for the vertical and horizontal lines:

- Files the lines running vertically
- Ranks the lines running horizontally

Model files, ranks, and diagonals on the demonstration board.





Student Practice Activity 2

With different colored pencils or crayons for each of the three line directions...

- Ask the students to draw one or more vertical lines on their chess board handout and label each one as a "file".
- Ask the students to draw one or more horizontal lines on their chess board handout and label each one as a "rank".
- Ask the students to draw one or more diagonal lines on their chess board handout and label each one as a "diagonal".

"Light on Right" Chess Board Placement:

The first rule of chess is easy to remember because it rhymes: "light on the right." Explain that the chess board is placed between the two players and the board is positioned so that a light square is always by each player's right hand.

Explain that if the board is not set up properly the students will have to quit the game and start over. The entire game is changed when the chess board is not set up correctly.



Student Practice Activity 3

Give a blank chess board handout to half of the class. Have those students give their chess board handout to a student who does not have one. The student who receives the chess board handout will then set up the board between the two players as if they were going to play a game, remembering "light on the right." Do this several times.

Labeling Files and Ranks:

Explain that the "files", or vertical lines, are labeled with *letters a through h* (always lowercase letters).

Explain that the "ranks", or horizontal lines, are labeled with numbers 1 through 8.

Use the demonstration board to show the numbers and letters to the students.



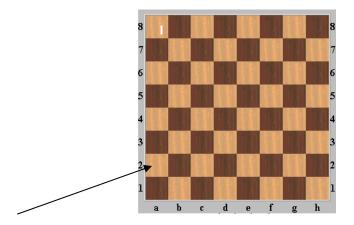
Student Practice Activity 4

The students will label the files and ranks on their chess board handout (files a-h and ranks 1-8). Remind students that the letters should be lowercase.

The students may want to practice the chess board vocabulary by completing pages 6 and 7 in *Chess Rules for Students* by John Bain.

Naming Coordinates:

Each square is where a file and rank intersect. Each square has a name. Model at the demonstration board with one finger going over to file a and then up to rank 2.



This intersection of file a and rank 2 is the square named a2. The squares on the chess board are named with letters and numbers, called "coordinates".

A "coordinate" is a pair of numbers or letters that together describe the exact position of something such as a place on a map, or a square on a chess board. Ask the students if they have ever played the game Battleship. Battleship is also set up using coordinates.

There are many different ways to help the students remember the order for file and rank: Some students remember file and rank as being in alphabetical order. Others remember first name = File and last name = Rank. The concept over and up (letters then numbers) or "walk over and jump up" is preferable by other students.



Student Practice Activity 5

Have the students practice naming squares. Call out a coordinate, b5. The students find square b5 on their chess board and label it b5.

Walk around the room calling more coordinates and checking for students' understanding. The students can finish labeling all 64 before placing their chess boards back in their folders.

Square One: Lesson II

Quadrants and Setting up the Chess Board

Objectives: Students will be able to understand the term quadrant and identify the

quadrants on the chess board. Students will be introduced to the chess

pieces and will learn to set up the chess board.

Review: The students can practice naming squares to review coordinates. Place pawns

randomly on the demonstration board and ask students to name their position

using the algebraic system (i.e.: c7).

Materials: Student chess folders with copies of chess board handouts, chess

demonstration board with masking tape, one marker for each student, and one

pencil for each student.

Vocabulary: Quadri - prefix meaning four or fourths

Quadrant - the name of one of the four equal sections created by two

perpendicular lines intersecting

Symmetrical - having both sides of a dividing line identical to each other

History of Chess:

Explain that the current game of chess reflects a time in history called the Middle Ages. The Middle Ages started in the 400's after the fall of the Roman Empire and ended in the 1400's prior to the Renaissance and Reformation. This was a time of unrest and it was common for different kingdoms to be at war with one another. Kings and Queens who ruled the kingdoms lived in castles for protection. If a King was cornered and had to surrender, the entire kingdom was lost to the enemy.

The basic goal of chess is to protect your King while trying to surround or trap your opponent's King in a checkmate.

White and Black Sides of the Chess Board:

Explain that there are two "teams" of chess pieces: the white team and the black team. There is also a white side and a black side of the chess board.

Place masking tape or a ribbon horizontally across the middle of the chess board between the 4^{th} and 5^{th} ranks.

White side: includes ranks 1-4
 Black side: includes ranks 5-8



King and Queen Sides of the Chess Board:

Explain that you can also divide the board in half vertically between the d and e files. Here you will have divided the board into a Queen side and a King side.

Queenside: includes files a-d
 Kingside: includes files e-h

It may help to remember the Queens are on the d file because Queens love diamonds.



Quadrants:

Explain that the chess board can also be divided into four "quadrants", or four equal sections.

- 1. Black Kingside
- 2. White Kingside
- 3. White Queenside
- 4. Black Queenside



Student Practice Activity 1

The students will divide their chess boards into the White side and the Black side and the Queenside and the Kingside using their marker. Have them label each quadrant of the board.

To reinforce quadrants, call out coordinates of several squares and have the students identify what quadrant the squares are from.

Introduction of Chess Pieces:

Kings and Queens

The King is the most important chess piece and is to be protected. The Queen is the second most important piece and the most powerful. Set up the Kings and Queens on the demonstration board (King: e1, e8, and Queen: d1, d8).

Bishops

A Bishop is the name of a priest who has been promoted to a more powerful position in the Church. The Bishop represents the Church. The Church was very powerful in the Middle Ages and was often consulted by the King and Queen. The Bishops are so trusted that they are positioned next to the King and Queen. Place the Bishops next to the King and Queen (c1, f1, c8, and f8).

Knights

In the Middle Ages, the Knights were the warriors who rode on horses during battles. They would fight battles to protect the King, living in the castle. The Knights on a chess board are between the Bishops and the Rooks. Place the Knights on the demonstration board (b1, g1, b8, and g8).

Rooks

The Rooks represent the castle towers (not the entire castle), the part of the castle used to fire weapons at attackers. Rooks corner the chess board similar to the way castle towers protected the castle. Place the two black Rooks and the two white Rooks on the demonstration board (a1, h1, a8, and h8).

Pawns

The kingdom included the castle as well as land outside of the castle. The land surrounding the castle was filled with many peasants who were common laborers. When wars broke out in the land, the peasants would fight on foot to protect their kingdom. The peasants are represented by the pawns on the chess board. There were a lot of peasants, and there are a lot of pawns. Place all of the black and white pawns on the demonstration board (2^{nd} rank and 7^{th} rank).



Demonstration Board

Model on the demonstration board how to set up the chess board correctly (see diagram below).

Note how the white pieces are set up on the 1^{st} and 2^{nd} ranks and the black pieces are set up on the 7^{th} and 8^{th} ranks.

The Queen is always on her own color (she likes to have her shoes match her dress). It is easy to remember the Queen is on the d file: Queens love diamonds.

The pawns fill the 2^{nd} and 7^{th} rank.

When the pieces are set in the start position on the chess board, you can see that the tallest pieces, the King and Queen, are at the center. The pieces get shorter as you go out: Bishop, Knight and Rook.



You might also note that the chess pieces are symmetrical if the board is folded between the 4^{th} and 5^{th} ranks.

NOTE: In chess diagrams, the white pieces are on the bottom (1^{st} and 2^{nd} ranks) and the black pieces are on the top (7^{th} and 8^{th} ranks).



Student Practice Activity 2

Quadrant Bingo!

Materials: Quadrant Bingo handout for each student. Teachers need to have the Bingo coordinates (64) cut out and ready to use.

The students will each have one Quadrant Bingo handout and a writing utensil.

Explain to the students that the quadrants have been labeled I, II, III, and IV.

Divide students into four teams and assign each team to a quadrant.

Randomly select one of the cards with the 64 coordinate names. Students will mark an X (or place chips) on the squares called (no matter which quadrant has been called).

When a team (one fourth of the room) gets four in a row horizontally, vertically or diagonally on their Bingo card they yell "Bingo!"

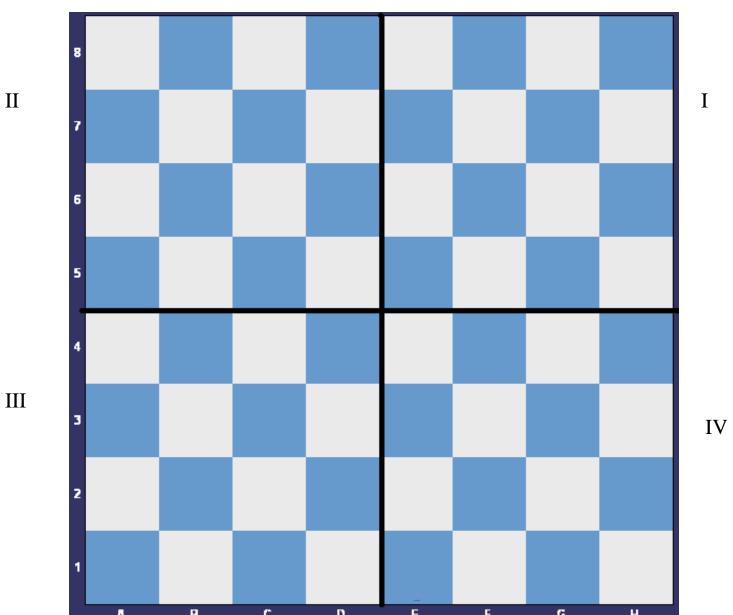
The winning team must explain the following before the win is declared "official":

- Vertical, horizontal or diagonal Bingo
- Which quadrant the Bingo is located
- The correct coordinate names that constitute the Bingo

Variation: You can have the students play until one quadrant gets a blackout where *all* of their 16 squares were called out. You could also require that they get a specific Bingo, such as a diagonal Bingo.

Quadrant Bingo!

Mark the coordinates that are called with the letter \boldsymbol{X} . If your team gets four in a row horizontally, vertically, or diagonally, you can call out Bingo!





Assessment for Square One

Chess Pieces Assessment

Board Set-Up

Option 1: Divide the students into groups of two. Each student will set up the chess board in the starting position. Observe and check off students who set up the board correctly.

Option 2: The teacher may want to use pages 8 and 9 in *Chess Rules for Students* by John Bain for an assessment.

DVD Teacher's Guide Square One: Lesson I

Board Basics and Coordinates

Objectives: This lesson introduces the fundamentals of chess; that chess is a game of

lines. It also tells a little history about the game of chess.

Review: No review since this is the first lesson.

Teacher's

Role: Activity 1: Oversee coloring activity.

Activity: Oversee acting out chess lines.

Activity 2: Oversee and demonstrate drawing the lines of chess.

Activity 3: Give blank chess board handouts to half of class and oversee the

activity.

Activity 4: Oversee and demonstrate labeling of files and ranks.

Activity 5: Call out coordinates (g6, b2, e5...).

Student

Materials: Activity 1: A partially filled in chess board handout and a pencil, crayon, or

colored pencil.

Activity: None.

Activity 2: A blank chess board handout, pencils, crayons or colored pencils

in three different colors.

Activity 3: Blank chess board handout.

Activity 4: Will use same chess board as in Activity 2.

Optional: Copies of pages 6 and 7 in John Bain's Chess Rules for Students

workbook. Note: When making copies from John Bain's

workbook, make sure you always first affix a website sticker for John Bain, so his site is listed (www.chessforstudents.com) at

the bottom of each copied page.

Activity 5: Blank chess board handout.

Activity 1: Students will complete the alternating black-white pattern by filling in their own chess board. Sounds super easy, but students will still do it wrong. Be sure to emphasize the snake-like pattern (starting in the upper left corner and moving to the right) and emphasize alternating black and white.

Answers to questions: There are 32 light squares, 32 dark squares, and 8 different sizes of squares for a total of 204 different squares on the board. 1-8x8, 4-7x7, 9-6x6, 16-5x5, 25-4x4, 36-3x3, 49-2x2, and 64-1x1.

NOTE: The students often have a hard time seeing this at first. It might help to have a square of each size cut out of construction paper to hold up to the board.

- **Activity**: Physically demonstrate the lines of chess with your arms and body for the students to imitate.
- Activity 2: Have students draw one or two lines each direction and label them. Depending on your class, you might want to use an overhead of the chess board and have them follow your lead. Use three different colors to help students see the difference.
- Activity 3: Practicing "light on the right." Give half of the students a blank chess board handout. Have them hand it to someone without a chess board to set-up between them.
- Activity 4: Using the same chess board used in Activity 2, label the files with lowercase letters and the ranks with numbers.
- Lesson: In this lesson, coordinates are introduced. We refer to using coordinates on a map. You might want to have a map handy to show students how to find things using coordinates on a map. This can also be used as an extended activity and saved for another day.

NOTE: Chess graphics are always drawn from the viewpoint of the white player. When discussing files, ranks, and coordinates, you may need to explain the terms "viewpoint" or "perspective" to the students.

- Activity 5: Using a blank chess board handout, call out pairs of coordinates and have students label them. You might want to fill in the entire board. Alternatively, or additionally, have volunteers come up to the demonstration board and put a random piece on the coordinate you call out.
- Review: These questions review the lesson just taught and can be tricky. So the questions will stay up on the TV until you press enter, to give your class time to discuss. The review section is optional, but if you don't answer the review questions right now, it is a good idea to answer them within 1-2 days.

DVD Teacher's Guide Square One: Lesson II

Quadrants and Setting up the Chess Board

Objectives: Students will learn the different ways in which the board can be divided.

They will also be introduced to all of the pieces.

Review: Review questions are not given as an option on this lesson. Instead, this

lesson starts with a short introduction and is followed by a review activity. Note: The coordinates for the review activity pop-up quickly in the video, so you may want to press pause after each one to give students time to place a dot on the correct coordinate if they are filling them in on their blank chess

board.

Teacher's Role:

Activity 1: Oversee as students color their boards.

DVD Note: Be sure to have the demonstration board and pieces ready for

the introduction of the chess pieces in the DVD.

Activity 2: Divide the class into four groups (quadrants) and randomly call

out coordinates.

Student

Materials: Optional: Blank chess board handout for review activity.

Activity 1: Blank chess board handout, pencils, crayons, or colored pencils.

Activity 2: Quadrant Bingo handout and a writing utensil.

Lesson:

Gives some history regarding the Middle Ages. You might want to have some books from the library available for students if they want to learn more or if you want to show them a few pictures.

Activity 1: Shading the quadrants of the chess board. You may want to have a blank chess board on the overhead projector that you can write on to demonstrate for the students.

While the pieces are being introduced in the DVD, take the corresponding piece and put it in the correct slot on the demonstration board (each piece will say its starting square).

Activity 2: Quadrant Bingo! Write the coordinates you call on the board or overhead as you move along.

Review: Option to review the lesson just taught. If you don't answer the review questions right now, it is a good idea to do them within 1-2 days.