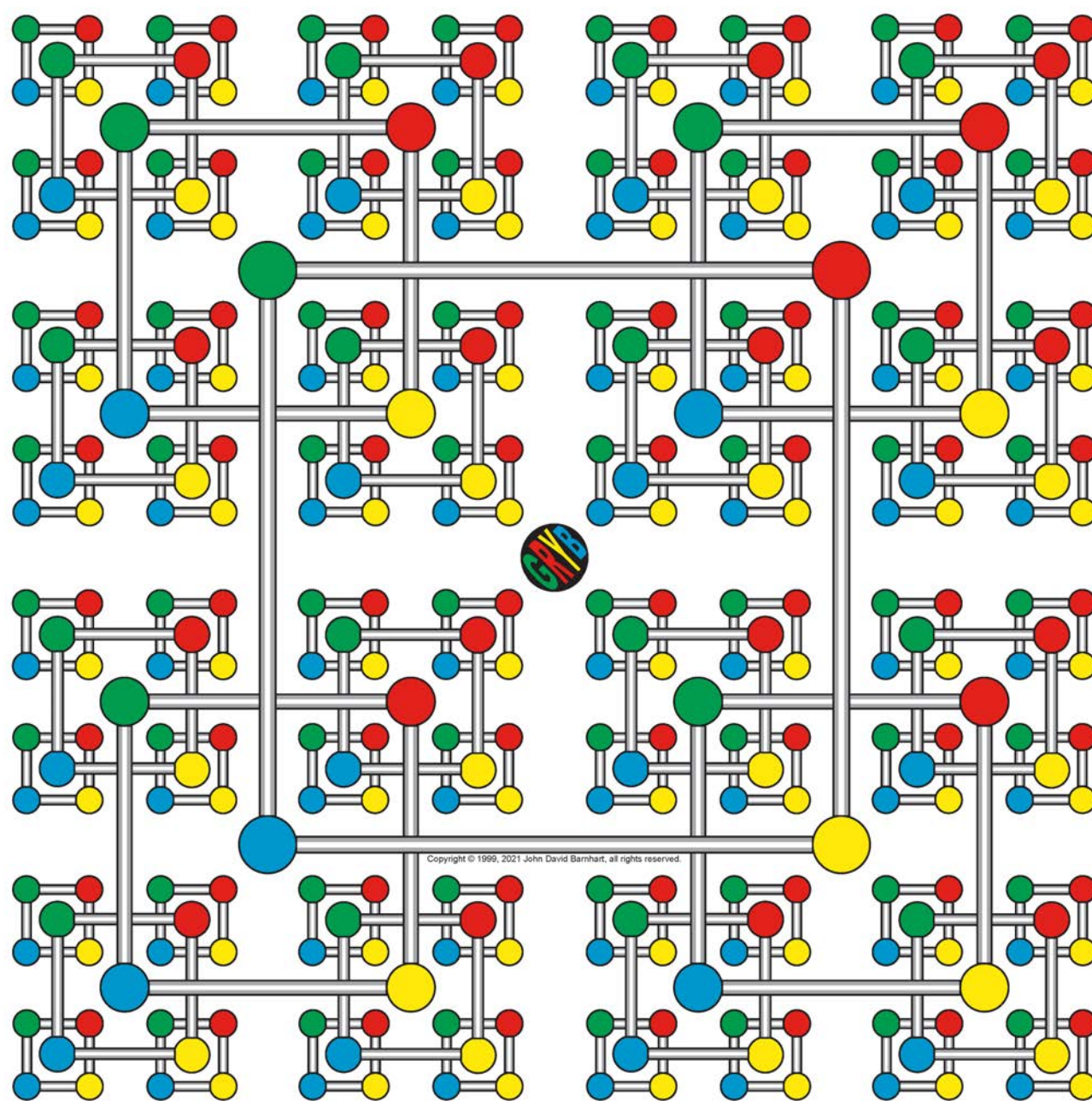# GRYB Game System

Included In This Game

The contents of this game are as follows:

• GRYB game board printed on a cotton bandanna

• A four-color GRYB die

• A stuff bag

• 64 game pieces (rings) – 32 of each color, and 4 conduit markers (mini pawns)

• This set of instructions

• Hours of enjoyment!

The GRYB Game Space

Tree Structure

The GRYB Game Space is built on an upside-down tree-like structure. Each **node** (colored spot) "branches" to four nodes beneath it. The four nodes on every **quadrangle** (square arrangement of linked nodes) have the same replicated sequence of colors; Green, Red, Yellow, and Blue.

The quadrangle surrounding a node is directly beneath that node. The zero level on the game board is the head node in the middle (root of the tree). The bottom level nodes on the game board have no quadrangles around them (leaves on the tree).

The layered quadrangles help distinguish the levels.

A chart of the nodes for each level is below:

Level	Number of nodes in level
Head Node (zero level)	1
Top Level (top quadrangle)	4
Second Level (4 quadrangles)	16
Third Level (16 quadrangles)	64
Fourth (bottom) Level (64 quadrangles)	256
$\sum_{i=0}^{4} 4^i$ = **Total number of nodes** =	**341**

Refer to the GRYB game board on the front page for reference throughout these instructions.

Nodes are the playing spaces for players' game pieces. Nodes in this document are represented in **BOLD CAPITAL** letters.

Additional information, games, virtual GRYB Dice, and more are at the JDB Games website at: www.jdbgames.com. Make sure you read and download the latest version of the GRYB Game System manual to learn more about how to create your own games and more.

Game Space Notation

Node Naming uses CAPITAL letters representing the colors of the nodes in a path from the Head Node to the named node. The node name is also the **coordinate**. Top level nodes are: **G**, **R**, **Y**, and **B**. Second level nodes under the top-level red node are: **RG**, **RR**, **RY**, and **RB**. Refer to each component of the coordinate as a "**locus**." Bottom level coordinates have four **loci** as components. Loci are in order of the path from the top node down to the node itself, eg. **GGBY** or **RYY**. The end locus is the "**focus**." It is the color that the game piece sits on. Notate the head node as **0**. The color of the head node is arbitrary. You may incorporate it as any color you wish.

Game Space Traversal

Some possible ways to move a game piece on the board are below. Games may use methods from among this list, or employ other ways to move.

Vertical Moves

Down

Move from a node to one of the nodes on the quadrangle surrounding it. Four different moves are possible. Each move down adds a locus to a coordinate. Examples are: **R** to **RG**, **RG** to **RGB**, and **YGR** to **YGRR**.

Up

Move from a node on the quadrangle surrounding the node you are moving to. Each move up loses the focus of the coordinate, and the penultimate locus becomes the focus. Examples are the opposite moves of the down examples above: **YGRR** to **YGR**, **RGB** to **RG**, **RG** to **R**.

Interjection

A move by interjection is a move down by inserting a locus somewhere before the focus in the coordinate. An example is **G** to **RG**. Another way is **RG** to **RYG**, or perhaps from **RYG** to **BRYG**, or to **RBYG**.

Limited Interjection

Limit Interjection by only interjecting the **penultimate** (next to last) locus in a coordinate. Some examples are: **BGY** to **BGRY**, **RG** to **RYG**, and **Y** to **BY**.

Excision

A move by excision is a move up by deleting a locus somewhere before the focus. Some examples are: **RBYY** to **BYY**, **GBYR** to **GBR** or to **GYR**. Interjection and excision moves are not readily apparent to the eye.

Limited Excision

Limit excision by only excising the penultimate locus in a coordinate. Examples here are the reverse moves of limited interjection moves above: **BGRY** to **BGY**, **RYG** to **RG**, and **BY** to **Y**.

Lateral Moves

Sideways

A sideways move is a basic lateral move from one node to a node one length away, on the same quadrangle. These moves are readily apparent to the eye. Examples: From **G** to **R** or **G** to **B**. From **BGRY** to **BGRR**.

NOT **G** to **Y** or **BGRB** to **BGRR**! These moves are two lengths away.

Hyperspace

This is a lateral move where an upper locus (not the focus) of a node is moved to the side. (The deviation can only be in one locus, one move away as in a sideways move above.) Example: from **RGYY** to **YGYY**. Or move from **RRGB** to **RRBB**. As well, a move from **GY** to **BY**. At the top level this becomes a sideways move. Hyperspace moves are not readily apparent to the eye.

Limited Hyperspace

Limit hyperspace by only varying the penultimate locus in a coordinate. Examples are: **YGBR** to **YGGR**, **RGGG** to **RGRG**, and **GBY** to either **GGY** or **GYY**.

Using Lines

Two game pieces on contiguous nodes (up, down, or to either side) may form a line. Use lines to form GRYBs or shapes, etc. Examples of lines are: [**G**, **R**], [**Y**, **YB**], [**G**, **GY**], or [**RGRG**, **RGRR**]. Move and change lines, combine lines and so forth.

Moving Lines

Lines may be moved in formation by interjection, excision, or via hyperspace. The foci in a line do not change. Example: move [**BRY**, **BRR**] to [**BGY**, **BGR**] via hyperspace. Move by

excision: [**BRY**, **BRR**] to [**RY**, **RR**], or by interjection: [**BRY**, **BRR**] to [**BRGY**, **BRGR**] or from [**R**, **RG**] to [**BR**, **BRG**].

Changing Lines

To change a line, move one endpoint to any other node contiguous to the other endpoint. An example is from [YB, YBY] to [YB, YBG]. Another is from [G, GR] to [GR, GRB].

Using Shapes

Define three or more contiguous game pieces (an arrangement of laterally and/or vertically consecutive nodes) as a shape. Name shapes, move shapes, change shapes, and combine shapes to form a GRYB or some other customized winning arrangement.

Notation for a shape is like a set with square brackets. An example is the shape [**G**, **B**, **Y**]. Simply three nodes, laterally contiguous, on the top quadrangle. Another example is [**GY**, **GYR**, **GYRR**]. These are vertically contiguous nodes. Another is [**YBR**, **YBY**, **YBYG**]. This is comprised of a laterally contiguous node and a vertically contiguous node. Use the head node, notated as **0**; as in [**0**, **B**, **BR**] or [**0**, **B**, **BY**].

Moving Shapes

- As a block, move a shape through interjection, excision, or hyperspace. This does not change the foci or the arrangement of the shape. An example is moving the shape [**GR**, **GRY**, **GRYY**] to [**R**, **RY**, **RYY**] through excision. Another is a move via hyperspace: [**YBR**, **YBRR**, **YBRG**] to [**YGR**, **YGRR**, **YGRG**]. The head node can be any color. For example the shape [**0**, **G**, **R**] could move down to [**G**, **G**, **R**] or [**R**, **G**, **R**] or interject **Y** or **B** as the first locus.

- Hop a game piece from one end of a shape to a node past the other end of the shape, vertically or laterally. This move changes the shape. An example is from [**R**, **Y**, **YG**] to [**Y**, **YG**, **YB**]. Another example is from [**0**, **R**, **G**] to [**R**, **G**, **GB**] or to [**R**, **G**, **B**]. Moving a node up a level only offers one choice, to a lateral node offers two choices, and going down offers four choices. Hopping over the head node could be possible, or hop into periodic game space.

Changing Shapes

Change shapes by keeping the center node stationary, and moving either end node to another node linked laterally or vertically to the middle node. Examples of this are: [**YG**, **YGR**, **YGRB**] to [**YG**, **YGR**, **YGY**] and [**YG**, **YGR**, **YGRB**] to [**YGG**, **YGR**, **YGRB**]. These moves only move one of the end nodes. Some shapes have an arrangement of nodes such that it may have either of two nodes as the middle and the other as the end, giving more flexibility in shape changing. An example is [**B**, **BG**, **BR**]. Either **BG** or **BR** might be considered the center. Moves could be to [**B**, **BG**, **BGY**] or [**B**, **BR**, **BRY**].

Get-started Games

More games and the virtual GRYB Dice are online. Many games played on the GRYB Game System involve "getting a GRYB."

Get a GRYB

When a player gets all the nodes of a quadrangle covered with their game pieces, that is called a "GRYB."

Score points for each GRYB. You may wish to devise your own scoring method. An easy effective way to score a GRYB uses double the number of points for each successive level down. Use a binary scoring method:

Top-level GRYB	1 point
2nd level GRYB	2 points
3rd level GRYB	4 points
Bottom level GRYB	8 points

EZ GRYB

Goal

The goal is to cover all four nodes (colored spots) on any <u>quadrangle</u> (a square with four colored nodes on the corners) to win. This is called <u>getting a GRYB</u>. Deeper level GRYBs are worth double the number of points of the level directly above.

Top level GRYBs are worth one point, next level–two points, next level–four points, and bottom level–eight points.

Play for highest number of points out of five games, or first to reach 21 points to decide a series.

To Play

Two players alternate turns rolling the four-color <u>GRYB die</u> and making one move (defined below) onto a node of the same color rolled. Each move you must either place a new game piece, move a game piece down, or move a game piece sideways if you can. If you are not able to move, you must pass your turn.

Moves are described as follows:

New moves

A new move is to introduce a new game piece into the game. After the die roll, you may move to an unoccupied node of the same color rolled, on the top quadrangle. New moves must start only at the top level.

Moves down

A move <u>down</u> is from a node to an unoccupied node the next level down on the quadrangle surrounding the node you are moving from. The color of node you move to must be the same as the one just rolled on the dice at the beginning of the turn. There are no more downward moves past a node on a bottom level quadrangle.

Sideways moves

Sideways moves are made only on the same quadrangle and **only to capture an opponent's game piece**. A sideways move may be to a node to either side, on the same quadrangle. Again, the color of node you move to must be the same as the one you roll on the die. Your opponent's game piece must be on the node you are moving to, the game piece is removed and replaced by yours.

Squirrel Race

Two squirrels race to gather nuts.

Goal

Be the player (squirrel) to gather the most game pieces (nuts) and get the most points.

To Play

Phase One

Take turns rolling the GRYB dice (found on the JDB Games website) and putting a game piece on the fourth-level node rolled. Place 60 game pieces. These are nuts. Make the different colored nuts worth different points. Nuts of your color ring are worth two points and the others one point.

Phase Two

Players use squirrel tokens (a marker with a colored ring around it). One squirrel per player with a different colored ring on their marker to tell them apart. Squirrels all stay on the third level. Roll the GRYB die to choose a color. Move your squirrel to a third-level node of the color rolled. You choose which node. If there are nuts under the squirrel on the fourth-level, gather them up and put them in your nut pile. You gather both colors of nuts. Your color nuts are two points and the other color one point.

Then, alternate turns moving the squirrel and gathering nuts on the fourth level beneath. Moves may only be sideways or via hyperspace. Try to gather the most nuts in the fewest turns. Once all the nuts have been gathered count the points to determine who wins.

Drangles

Short for Quadrangles, Drangles is basic GRYB.

Goal

The object of each game is to get four of your game pieces covering all four nodes of any one quadrangle. Different numbers of points are awarded for different level quadrangles. See Get a GRYB for more information. Play a series of games for high score, or first to reach a specific score.

To Play

Players alternate turns making two moves per turn. Move one game piece twice or two game pieces once. Game pieces may only be introduced through the head node as the first move. Subsequent moves for any game pieces on the game surface must either be downward to an unoccupied node, or sideways to an unoccupied node. You may move through an occupied node if there is an open node after it to land on with your second move.

Hyper Drangles

Goal

The goal is the same as in the game Drangles– to get a GRYB. More points are awarded for deeper level GRYBs.

To Play

As in the game Drangles, two players alternate turns moving one game piece twice or two game pieces once. Game pieces must be introduced through the head node. Game pieces cannot occupy the same node, but may move through occupied nodes.

The difference between Drangles and this game is that this game allows hyperspace moves as well as downward and sideways moves.

The Fourth Level

Goal

Get a GRYB on the fourth level.

To Play

Players begin with eight game pieces each, distinguishable from each other's. The game is played in two phases.

In phase one, players alternate turns rolling the GRYB dice (online at www.grybgame.com) and placing a game piece on the node rolled. All these nodes are on the fourth level. Once all sixteen game pieces have been placed, begin phase two.

In phase two, players continue to alternate turns moving a game piece each turn. Moves must be sideways or hyperspace moves. Game pieces never leave the fourth level.

Interrupt

This game was devised by my daughter at 8 years of age.

Goal

Play to get a GRYB. Play a series of games for high score, or first to reach a specific number of points.

To Play

Two players take turns rolling the four-color GRYB die, and placing a game piece on the rolled color each turn. Moves must start at the top level, and subsequent moves must build on an uninterrupted chain of your own game pieces downward from a node in the chain. Building may continue as long as there is a chain all the way to the top level. Sideways moves may only be used to capture an opponent's game piece, thereby interrupting the chain and preventing further building on that chain. After a player's chain has been interrupted, the player may begin a new chain or reclaim the lost space in the former chain by using a sideways capture-move if possible. When a player gets a GRYB, score the GRYB, and begin a new game.

Connection

Goal

Be first to establish a connection between two extreme opposite points. A connection is a sequence of nodes which are contiguous through up, down, sideways, and limited hyperspace moves.

To Play

The first player chooses which endpoints to connect and covers them with game pieces. The second player covers the other two. The choices are either **GGGG** and **YYYY**, or **RRRR** and **BBBB**.

Then, players alternate turns <u>rolling the die</u> and moving to a node of the color rolled. Moves are either to introduce new game pieces or move ones already on the game board.

You can only get on the game board through the top level. Move onto the color rolled if possible. Opponent's game pieces may block your move.

Subsequent moves may be down, up, sideways, and limited hyperspace to an unoccupied node of the color rolled.

Blobs

Goal

This GRYB game has nothing to do with getting a GRYB. The object of the game is to devour your opponent's smaller blobs with your larger blobs. A ***blob*** is formed by connecting four or more nodes, linked <u>sideways</u>, <u>up</u>, or <u>down</u>.

Once a player has dominated the board such that his opponent cannot win, the victory is decisive. A draw may occur if two opponents are mutually unable to gobble one another up, usually because they only have one blob each and they are the same size.

To Play

Take turns rolling the GRYB Dice II (randomly selects one node from the entire game board) on the JDB Games website. Each player places a game piece on the node rolled. If the node is occupied, roll again.

After 15 pieces each have been placed, take turns moving the pieces to form blobs to consume opponent's game pieces.

Individual pieces, lines (two connected nodes), or shapes (three connected nodes) move up, down, sideways, via hyperspace, interjection, or excision. They cannot devour game pieces.

Blobs move one node at a time, taking a piece from some edge of the blob and moving it to the desired node, like leap-frogging one piece at a time. Moves may be up, down, or sideways. No more hyperspace, interjection or excision. We call it *oozing*. They can devour smaller blobs and other game pieces one game piece at a time per turn.

Once a blob is formed it stays a blob, you cannot break it into smaller pieces. But you may grow blobs by connecting more of your pieces and other blobs.

If a blob moves to an opponent-occupied node, it devours that piece. Gobble it up a move at a time, unless your opponent can grow the blob bigger to defend itself, or move out of reach. A blob which has been gobbled to fewer than four nodes may move as such. It is no longer a blob.

The Borg

Goal

The object of the game is to turn all of your opponents game pieces into your game pieces. This is similar to the game Blobs above, but instead of devouring opponent's game pieces you *assimilate* them.

Once one player's *collective* has dominated the board, you may declare a win.

To Play

Two players start with fifteen game pieces each. Take turns rolling the GRYB Dice II (found on the JDB Games website) to place each piece.

After all 30 game pieces have been placed, take turns moving individual pieces, lines, or shapes up, down, sideways, via interjection, excision, or hyperspace to create larger groups of four or more called **collectives**.

Collectives move one space at a time like blobs above. Take a game piece from one edge of the collective, and move it to the desired node. Only up, down, or sideways moves are permitted.

When you move a collective **next to** a piece or a smaller collective of your opponent, you assimilate (replace) your opponent's game piece with a new one of your own game pieces. If the spot you move to is next to multiple opponent game pieces, each of those is assimilated similarly. The overall number of game pieces does not vary, they just change color.

Square Deal

Goal

Get GRYBs to win. However, a GRYB may consist of **both** players game tokens. The player who completes the GRYB removes the GRYB to his capture pile. The level of GRYB is not important. The player with the most opponent's game pieces in his capture pile at the end of the game, wins. Play a series of games for high score.

To Play

Phase One

Players take turns rolling the GRYB Dice II to select starting positions for 20 game pieces each. If the node is occupied, roll again.

If a player completes a GRYB during this phase, he removes it to his capture pile. The removed game pieces are not returned to play. The entire GRYB is removed, both player's game pieces.

After all game pieces have been placed, players take turns moving one game piece, <u>line</u>, or <u>shape</u> per turn. Moves may be <u>up</u>, <u>down</u>, <u>sideways</u>, <u>hyperspace</u>, <u>interjection</u>, or <u>excision</u>. For an easier version, limit moves to up, down, sideways, and hyperspace. Moves should be to complete GRYBs containing the most opponent's game pieces. You may wish to complete and remove GRYBs of your own game pieces to prevent your opponent from capturing them.

The game is finished when there are not enough game pieces remaining to get a GRYB or the last few pieces are conceded as a cat's dilemma with no solution.

25 Men's GRYB

This game is a variant of the ancient game "Nine Men's Morris."

Goal

The object of the game is to reduce your opponents number of game pieces to three or fewer by forming <u>GRYBs</u> with your own game pieces, and removing his/her game pieces for each GRYB you form. Game pieces remain out of the game for the duration.

Different level GRYBs are worth different numbers of your opponents game pieces removed. A top level GRYB is worth 1 game piece removed, next level - 2 game pieces, the third level down - 3 game pieces, and the bottom level is worth 4 game pieces removed. You chose which game pieces to remove.

To Play

Two players start with 25 game pieces of opposite color, each. This game has two phases.

Phase One

Game pieces are introduced onto the game board but not moved. Game pieces may be placed on any node on the board to introduce them.

Phase Two

After all the 50 game pieces have been initially played, players move game pieces on the game board. Moves must only be to unoccupied nodes. Moves may only be <u>up</u>, <u>down</u>, <u>sideways</u>, or <u>hyperspace</u> moves.

At any time during both phases, a player can get a GRYB and remove the appropriate number of opposing game pieces permanently from the board. A GRYB may be repeated by simply moving a game piece out of and back into formation.

GRYB Game System website QR code:

Notes

Try making variations of the games above. Note your successes here for future reference.