

black hole explorer

Extreme Pre-Made Ships

These ships represent the extremes of the funding spectrum. The Behemoth is fully funded, with full resources in all categories. The Atomic has minimum funding with only one resource in each category. Playing these ships will not result in a 'fair' game. The Behemoth clearly has the advantage over all other ships. Instead, playing these ships allows for participants to explore the range of experiences that come up related to how well prepared, or not, ships are for the trip. This relates directly to funding. Play these ships alone or with others to increase the participants' appreciation of how funding affects ship success, and to encourage more creative solutions and teamwork.

Print out this document or copy it using the two-sided feature of your printer or copier. Each of the ships should have a "quick rules" reference on the back. You may need to make multiple copies of each ship, depending on how many ships are in the game.

black hole explorer

This page left intentionally blank.

black hole explorer



Explorer Ship “Atomic” Class

The ‘Atomic’ is designed for maximum economy; hoping to learn about a black hole on a very small budget.

NOTE: Built with the minimum number of all resources, you’ll have to be both smart and lucky to get the Atomic near the black hole, launch your probe, and return safely. But if you do, you’ll have saved millions of dollars. Your major issue will probably be energy, since you do not even start the game with enough to get away from the black hole. You’ll need to find other sources.

PROBES. No ship can have more than three.

Number of probes
to start: |

Tick here when probes
are damaged:

Tick here when probes
are launched:

SHEILDING to protect vital systems from Radiation. No ship can have more than three shield layers.

Number of shields
to start: |

Tick here when shields
are damaged:

HULL STRENGTH to protect the ship from gravity. No ship can have more than three reinforcement layers.

Number of layers
to start: |

Tick here when strength
is damaged:

ENERGY to move and power the ship. Each engine provides 6 units of energy at the start of the game, to use as the game progresses. No ship can have more than three engines. One engine = 6 energy tokens; Two engines = 12; Three engines = 18.

Number of engines
to start: |

Tick here when engines
are damaged:

Take 6 energy tokens to start.

Spacecraft Name:

Now, you are ready to begin your mission! As the mission progresses, some of the information above will change – for example, you may gain hull strength, or lose an engine. Record those changes on this sheet.

black hole explorer

Rules Quick Reference

This is the spaceship you are going to use to get close enough to a black hole to study it. Try to be the one who gets back safely with the most probe results before time runs out. But be careful! A black hole is very hazardous, and your ship might get damaged or spiral into the black hole, never (or probably never) to return!

Part 1. Preparing for the Game

Review your ship; see how many engines, probes, etc. you start with. Take the appropriate number of energy tokens from the pile. Start your ship token at the large space ship picture on the board.

Part 2: Playing the game.

Your aim is to 'orbit' the black hole, and to launch at least one probe when you get near it. Once you have launched all your probes, try to return home - back to the large picture of a space ship on the board.

Moving

ALWAYS move counterclockwise when approaching and leaving the Black Hole. Roll 2 dice to move.

Any time you land on an  (Event) square, pick up an Event card and do what it says.

Each level around the board is called an 'orbit'. You must make at least one orbit before ascending or descending in the CHANGE ORBIT zone. You can only move up or down one level at a time. You can only willingly go up and down in the CHANGE ORBIT zone (although other events like running out of energy can drop you down or bump you up anywhere.)

It costs nothing to drop an orbit, but always costs one energy point to willingly climb an orbit, because you are fighting the pull of gravity from the black hole.

If you run out of energy, you automatically drop one orbit every turn!

Launching a Probe

If you are in the last orbit (lowest level) you can launch a probe at the end of your turn. You must pay one energy point and then cross off a probe box on your sheet. The facilitator will give you a 'Probe Result Card'.

Helping Out

If you land within one space of another ship, either in your orbit or one orbit above or below, you can arrange an exchange. It costs you one energy for each thing you give them: either a probe, a shield, or even another energy point. Why do it? You might be in need yourself later in the game, or maybe you are playing in teams.

Losing your ship

The area around the black hole is very dangerous. Many ships will not make it in to launch a probe, or make it out to report their results. If your ship is destroyed before anyone else has made it back 'home', pull another ship sheet and keep trying! You may still succeed in getting in and out with a result before anyone else.

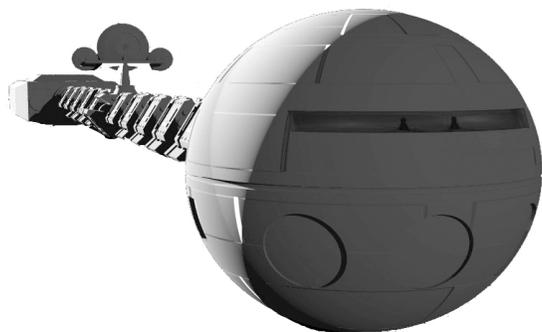
Falling into the Black Hole

If you fall into the black hole, roll two dice. A roll of two sixes sends you home through a wormhole to automatically win! Any other roll and it's time to build a new spaceship and give it another try!

Part 3. Winning the Game.

You can only report your results to the scientific community if you make it out of the black hole! Once you have launched one to three probes, and gotten your probe results, then return to the ship. The one who makes it back with the most probe results before time is up, wins the game.

black hole explorer



Explorer Ship 'Behemoth' Class

With maximum resources, the 'Behemoth' has a good chance of making key discoveries about black holes.

NOTE: But be cautious, even the most well built and well-funded ship can still have problems, especially in the 'Danger Zone'. Generosity shown early on might come in handy if problems arise later, and you help.

PROBES. No ship can have more than three.

Number of probes
to start: 3

Tick here when probes
are damaged:

Tick here when probes
are launched:

SHEILDING to protect vital systems from Radiation. No ship can have more than three shield layers.

Number of shields
to start: 3

Tick here when shields
are damaged:

HULL STRENGTH to protect the ship from gravity. No ship can have more than three reinforcement layers.

Number of layers
to start: 3

Tick here when strength
is damaged:

ENERGY to move and power the ship. Each engine provides 6 units of energy at the start of the game, to use as the game progresses. No ship can have more than three engines. One engine = 6 energy tokens; Two engines = 12; Three engines = 18.

Number of engines
to start: 3

Tick here when engines
are damaged:

Take 18 energy tokens to start.

Spacecraft Name:

Now, you are ready to begin your mission! As the mission progresses, some of the information above will change – for example, you may gain hull strength, or lose an engine. Record those changes on this sheet.

black hole explorer

Rules Quick Reference

This is the spaceship you are going to use to get close enough to a black hole to study it. Try to be the one who gets back safely with the most probe results before time runs out. But be careful! A black hole is very hazardous, and your ship might get damaged or spiral into the black hole, never (or probably never) to return!

Part 1. Preparing for the Game

Review your ship; see how many engines, probes, etc. you start with. Take the appropriate number of energy tokens from the pile. Start your ship token at the large space ship picture on the board.

Part 2: Playing the game.

Your aim is to 'orbit' the black hole, and to launch at least one probe when you get near it. Once you have launched all your probes, try to return home - back to the large picture of a space ship on the board.

Moving

ALWAYS move counterclockwise when approaching and leaving the Black Hole. Roll 2 dice to move.

Any time you land on an  (Event) square, pick up an Event card and do what it says.

Each level around the board is called an 'orbit'. You must make at least one orbit before ascending or descending in the CHANGE ORBIT zone. You can only move up or down one level at a time. You can only willingly go up and down in the CHANGE ORBIT zone (although other events like running out of energy can drop you down or bump you up anywhere.)

It costs nothing to drop an orbit, but always costs one energy point to willingly climb an orbit, because you are fighting the pull of gravity from the black hole.

If you run out of energy, you automatically drop one orbit every turn!

Launching a Probe

If you are in the last orbit (lowest level) you can launch a probe at the end of your turn. You must pay one energy point and then cross off a probe box on your sheet. The facilitator will give you a 'Probe Result Card'.

Helping Out

If you land within one space of another ship, either in your orbit or one orbit above or below, you can arrange an exchange. It costs you one energy for each thing you give them: either a probe, a shield, or even another energy point. Why do it? You might be in need yourself later in the game, or maybe you are playing in teams.

Losing your ship

The area around the black hole is very dangerous. Many ships will not make it in to launch a probe, or make it out to report their results. If your ship is destroyed before anyone else has made it back 'home', pull another ship sheet and keep trying! You may still succeed in getting in and out with a result before anyone else.

Falling into the Black Hole

If you fall into the black hole, roll two dice. A roll of two sixes sends you home through a wormhole to automatically win! Any other roll and it's time to build a new spaceship and give it another try!

Part 3. Winning the Game.

You can only report your results to the scientific community if you make it out of the black hole! Once you have launched one to three probes, and gotten your probe results, then return to the ship. The one who makes it back with the most probe results before time is up, wins the game.