A game for 1-2 players
with a duration of 25'.
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RAY MASTER

INTRODUCTION

From one of the most hidden-away laboratories in the Atomic Biochemistry Brave Academy (ABBA), a shout rises to the skies: "¡Eureka!".

After years of research, Professor Röntgen has invented a new thingamajig capable of modifying the atomic composition of objects, to the point where it can make them shrink and grow at will. But his arch-rival Professor Stern wants to steal the idea at any cost.

Both professors must use their scientists and students wisely to get the most astonishing test results, while discreetly trying to sabotage their rival.

COMPONENTS

*A dashboard.

*A test board.

*A cut-out Ray.

*12 PVC cubes:
- 4 orange markers.
- 4 blue scientists.
- 4 yellow scientists.

*12 student cards.


x6


x2


x2

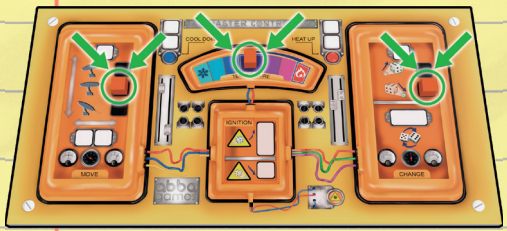

x2

*18 dice in two colours:
- 6 large dice.
- 6 medium dice.
- 6 small dice.

*This rulebook.

SETUP

Place the dashboard in the centre of the table, and place the orange markers as shown in the image below.



Each player picks a colour, blue or yellow, and takes 2 scientists (cubes) of that colour. Place a third scientist of your colour next to the board.

The remaining scientists are only used in advanced games. If you are playing a basic game, leave them in the box.

Put the test board next to the dashboard and an orange marker in square 12 of the energy track. Also, place the samples for each player (3 large dice and 1 medium one) as shown in the image ,with their visible faces just like in the image. Leave the remaining dice to one side on the table.

Roll a die to place the ray: if you get an even result, place it in square 2; if you get an odd number, place it in square 3.

Shuffle the student cards to form a deck, and each player draws two cards from the top. Leave the rest of the deck next to the board.

OBJECTIVE

To get the best experimental samples, you must use the ray to manipulate the value and size of your dice, while you sabotage your opponents by changing theirs.

The higher the visible value on the die, and the smaller it is, the more points the player of that color will get. The player with most points at the end of the game will be the winner.

HOW TO PLAY

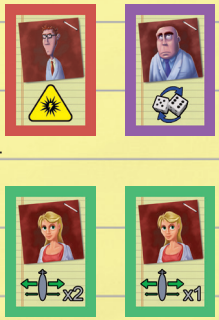
During your turn, you can perform one or more actions (with no repetitions). The available actions are represented on the dashboard, and you will use scientists and students to trigger them.

With these actions you can manipulate the ray, which you can move, change the height of the ray, heat it up, cool it off, etc. to try to get the best samples (dice) for yourself and to worsen your opponents' samples.

Scientists and students

You will need your scientists to perform these actions. Depending on the action you want to take, you will need 1 or 2 scientists, which you place on the corresponding white squares of the dashboard.

Using your student cards, you can perform certain actions without needing scientists. Unfortunately, each student is only qualified to do one specific task, as shown on their cards.



Game sequence

Each turn is played in three consecutive steps. Once you're finished, it's your opponent's turn, and so on until the end of the game. These are the three steps:

1. Action Selection: Choose the actions you want to perform this turn. First, you must pick a student card from your hand and place it on the dashboard, covering the action it's going to perform.
Then, if you want, use your available scientists to select one or more actions, as explained below.

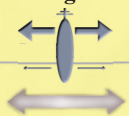
Note:
you are not allowed to repeat the action on the student card.

2. Action resolution: Perform your selected actions in whatever order you want, taking back the corresponding scientists and students as you do. Used student cards go straight to the discard pile, but you get your scientist team back for next turn.
If you haven't fired the ray this turn, take the extra scientist, aside from your two regular ones. This additional scientist will help you during your next turn. If you also don't shoot this turn, keep it. If you don't fire the ray the next turn either, hold onto the extra scientist. If it is already in your possession, and you have fired the ray this turn, put the extra scientist back, next to the test board.

3. Recruit a new student: Once you have completed all the actions, draw a new student card from the deck. You will continue drawing cards every turn until the deck is used up. Once the deck is finished, keep playing student cards from your hand normally. Once all students have been used (i.e. the players don't have any cards left in their hands), shuffle the discard pile to form a new deck. Both players draw two student cards, and continue playing as before.

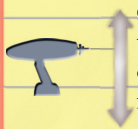
ACTIONS

Moving the ray (1 or 2 scientists)



Move the ray **in just one direction,** as many steps as scientists you used for this action. If you use a student card, you must move it as many spaces as the card indicates (you can't move it only one space if it says two).

Changing the ray's height (1 scientist)



Change the ray's height. For this, move the orange marker on the dashboard to the desired position (see Firing).

Changing ray mode (1 scientist)

Change the ray's mode from growth to shrink, or vice versa. Move your orange marker to the new position.

Note: If the ray changes to growth, the cost of firing increases to 2 scientists, as explained below).

Switching two dice (2 scientists)

Switch the position of two of your dice, without altering size or number. You may also move one of your dice on the board to an empty square of your colour (this can only happen when a die has been destroyed and the space left empty).

Heating up the ray (1 or 2 scientists)

Move the temperature marker up as many positions as scientists you've assigned to this action.

Note: The ray can't fire if it's at maximum temperature.

Cooling down the ray (1 or 2 scientists)

If the ray is at maximum temperature, move the marker down three steps. Otherwise move down **2** positions for each scientist you've assigned to this action.

Note:
Your shots will be more effective if the ray is completely cold when you fire, as explained below.

Firing (1 or 2 scientists)

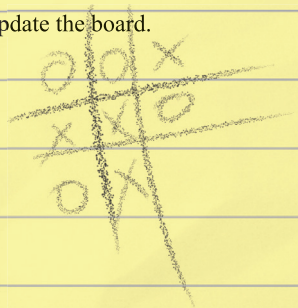
The cost for firing the ray depends on the selected ray mode. Use 1 scientist to use it in shrink mode, and 2 in growth mode.
Follow the steps below to fire the ray:

-Check the temperature.

-Confirm the height of the ray.

-Fire the ray.

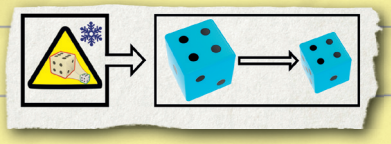
-Update the board.



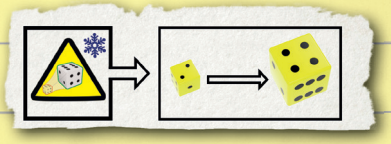
1.- Check the temperature

If the ray is at max heat, you can't fire (you'll need to cool it down first).

If the ray is completely cold, in shrink mode, the shrunken die keeps its numeric value.

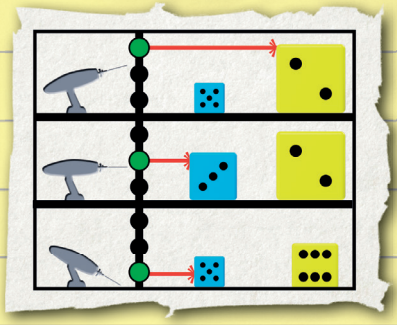


While in growth mode, the die increases its size and its numeric value by two points (instead of one), if that's possible.



2.- Confirm the height of the ray

Check the height marker for the ray. In its highest position, the ray can only hit the larger dice. With the middle position, you can hit large and medium dice. When the ray is in its lowest position, it can hit all three sizes of dice. The ray always hits the closest die on its lane that coincides with the height of the ray (it may happen that the ray doesn't hit any dice, if the heights aren't right).



Example: If you fire at medium height but the closest die is a small one and the one behind is medium (or large), then the ray will hit the medium (or large) die. If the closest die was the large or the medium ones, the ray would hit this die first and would not reach the one behind it.

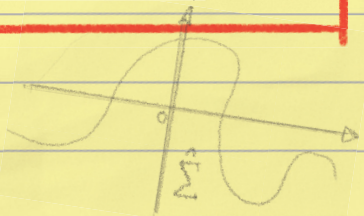
3.- Firing the ray

Zzzzzap! Once you have determined which die will take the hit, change the die by applying the following rules:

If you fire in **shrink mode**, swap your die for the next smallest one from your reserve. Place the new die on the board in the same square the larger one was in, and lower its value by 1 point (unless the ray was completely cold, in which case it keeps its numeric value).

Example: A large die with a numeric value of 5 will become a medium die with a value of 4.

Important: When firing at a die in this way, if there are no more dice of the directly lower size, the die disappears. If you try shrinking a small die, it gets lost in the quantum world and disappears. In both cases, take the die away from the board and leave it aside with your other dice (it could still re-enter the board).



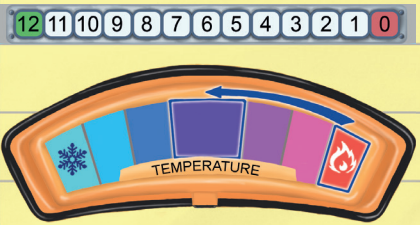
If you fire in **growth mode**, swap your die for the next largest one from your reserve. Leave it on the board in the same square the smaller one was in, and increase its numeric value by 1 point (unless the ray was completely cold, in which case you increase the value by 2 points).

Example: A medium die with a value of 5 will then be a large die with a value of 6.

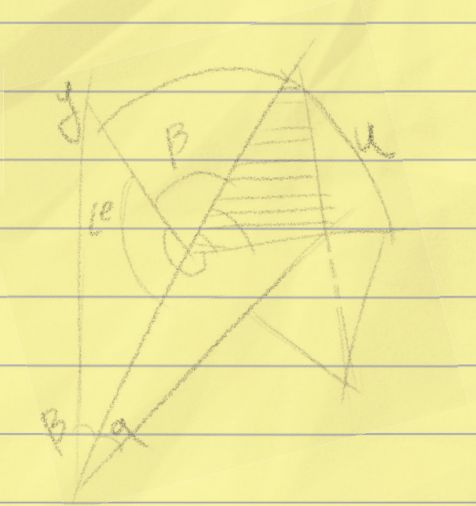
Important: When firing at a die in this way, if there is no larger die in your reserve, increase only its value. Do the same thing if you are firing in growth mode against an already large die. (Dice don't disappear when growing)

4.- Updating the board

Every time you fire: Increase the temperature by 1. Also, if you hit a die, reduce the available energy by 1.



Every time you DON'T fire: The ray will cool down 1 step, and you will also have an extra scientist but only for the next turn. At the end of your turn, take that scientist ready for your next round.



END OF THE GAME

When the energy marker reaches "0", or after you have used up all the students for a third time (i.e. you have gone through the student card deck three times), the game ends immediately, and the results will be ready for publishing in the most prestigious scientific journals.

The points for each player are calculated according to this super-scientific formula:

Player's score =(value of the small dice x3) + (value of the medium dice x 2) + (value of the largest dice)

Whoever gets the highest score will be the winner of the game.

If there is a tie, the winner will be whoever has more small dice on the board. If you are still tied, simply add the values of those dice and compare the results. If you are still tied after this, you have to admit the obvious: you will have to share the Academy's grant with the other player.

Victory example:

The **blue** player gets 12 points from his small die, 4 points for his medium die and another 4 points from his large die, for a total of **20 points.**

The **yellow** player gets 15 points from his small dice, 6 points for his medium die, and 3 points from his large die. He wins the game with a total of **24 points.**

Agradecimientos:
"To our families, who are all great, to Sandra, David, Patri and Javi, who never shrink from a challenge, and Grunchie who is not small. But particularly to Vins, for making us walk when all we wanted to do was run." Isra C. y Shei S.