

Scientific Tablecloths Gamification

Both Versions

Ages: 8+

Time: 15-20 minutes

Players: 2-6

Components

- 1x 20-sided dice
- 1x 6-sided dice
- 6x pawns of different colors
- 1x action card
- 1x scorebook with many scoresheets (also maybe 6 pencils of 6 different colors, matching the pawns)

Setup

Place the tablecloth on the table, where all spots are visible.

Each player gets a pawn of their choice or randomly.

The youngest player gets the 2 dice.

Each player gets one scoresheet from the scorebook, and note their name and pawn color on it with a pen or pencil.

Place the action card somewhere on the table where it is visible, or keep it in hand, in case it is needed.

Round

Players take turns, starting from the youngest player. During each round, each player plays a turn.

Turn

During your turn, you must:

- Roll the 20-sided dice. According to the result, place your pawn on the corresponding spot (the 20 sides match the 20 spots of the tablecloth).
- Roll the 6-sided dice. According to the result, perform the corresponding action (the 6 sides match 6 possible unique actions).
- Perform the action required on the spot where your pawn is placed.

After your turn, the next player must play. A clockwise order is suggested.

Spots

Each spot has a title and information of a specific aspect of the tablecloth's theme. There can be theory, types, symbols, numbers, shapes and other types of scientific information. Next to the title, there is an animal, an item and a shape. There are also some questions, which are used in the advanced mode.

Actions

There are 6 possible actions that can be performed on each spot. The action performed is defined by the result of the 6-sided dice. Each action has 3 possible elements, but only one is available on each spot.

Simple actions (under 14)

Dice number	Action	Element 1	Element 2	Element 3
1	Find a symbol	=	+, -	X, /
2	Find a shape	Triangle	Rectangle	Circle
3	Find a number	1	2	3
4	Find an letter/symbol	Latin	Greek	Other
5	Find a word	Noun	Verb	Adjective
6	Read	Title	First sentence	Last sentence

Advanced actions (14+)

Dice number	Action	Element 1	Element 2	Element 3
1	Find a symbol*	Arithmetical Operator	Function	Equation
2	Find a shape	Line	Flat shape	Volume
3	Find a number	0-9	10-99	99+
4	Find an letter/symbol	Latin	Greek	Other
5	Find a word	Noun	Verb	Adjective
6	Explain/Answer	Formula	Link	Question

When you perform an action, note it on your scoresheet, by drawing a line (l) on the corresponding spot on the scoresheet (see scoresheet) which represents one unit. Each action can be performed multiple times, so many units can be noted on the scoresheet. The template of the scoresheet is shown in the end.

Game End

The game ends after the final round is complete. The final round is triggered when any player completes a full action on their scoresheet (at least one of each elements of the action on scoresheet) and a full element row (at least one of each actions of an element on scoresheet). All players take a turn until the round is complete, meaning the last player has played the last turn.

End Game Scoring and Winner

After the final round is complete, you must count your final points. You score:

- 1 point for each element

- 1 point for each complete action set
- 2 points for each complete element column
- End game Bonuses

The end game bonuses are all worth 1 point. Players who have the majority (the most) of any specific action element are scoring. So, there are 18 possible end game bonuses (6 actions x 3 elements). In order to score, you must have the highest number of an action element, so ties do not score.

After calculating all the scored points, the player with the highest sum wins the game! In case of a tie, the youngest player wins.

Scoresheet

Advanced version

Dice number	Action	Element 1	Element 2	Element 3	Complete action set	End game bonus action
1	Find a symbol	Arithmetical Operator	Function	Equation		
		Points	Points	Points	Points	Points
2	Find a shape	Line	Flat shape	Volume		
		Points	Points	Points	Points	Points
3	Find a number	0-9	10-99	99+		
		Points	Points	Points	Points	Points
4	Find a letter/symbol	Latin	Greek	Other		
		Points	Points	Points	Points	Points
5	Find a word	Noun	Verb	Adjective		
		Points	Points	Points	Points	Points
6	Explain/Answer	Formula	Link	Question		
		Points	Points	Points	Points	Points
	Complete Element column	Points	Points	Points		
	SUMS	Column 1	Column 2	Column 3	Total sets	Total bonuses

Points = points from units

Points = points from completed action sets (1 for each completed)

Points = points from completed element rows (2 for each completed)

Points = points from end game bonuses (majorities won for each element, 1 per won majority)

Final SUM = Column 1 + Column 2 + Column 3 + Total sets + Total Bonuses

Example Column 1 sum = all unit points from elements 1 + complete element column (if applicable)

Simple version

Dice number	Action	Element 1	Element 2	Element 3	Complete action set	End game bonus action
1	Find a symbol	=	+, -	X, /		
		Points	Points	Points	Points	Points
2	Find a shape	Triangle	Rectangle	Circle		
		Points	Points	Points	Points	Points
3	Find a number	1	2	3		
		Points	Points	Points	Points	Points
4	Find a letter/symbol	Latin	Greek	Other		
		Points	Points	Points	Points	Points
5	Find a word	Noun	Verb	Adjective		
		Points	Points	Points	Points	Points
6	Read	Title	First sentence	Last sentence		
		Points	Points	Points	Points	Points
	Complete Element column	Points	Points	Points		
	SUMS	Column 1	Column 2	Column 3	Total sets	Total bonuses

Action card is a help card which explains the actions in detail.