Production Probability

A Game Schooler Notebook© for the board game **Catan**

n1 | Pre-Project Questions

1. What do you think are the MOST and LEAST commonly rolled results from two six-sided dice?

_____

_____

_____

_____

2. How do you decide where to place your starting settlements?

_____

_____

_____

_____
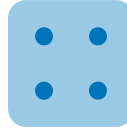
3. How do you determine where to place new settlements?

_____

_____

_____

_____
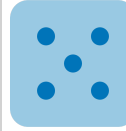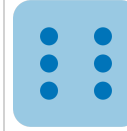
4. Why do you think the designer chose a result of "7" to activate the robber?

_____

_____

_____

_____

Fill in each box by adding together the light blue dice on the vertical axis with the dark blue dice on the horizontal axis. Once complete, tally each result in the form below.

	⚀	⚁	⚂	⚃	⚄	⚅
⚀	2					
⚁						
⚂						
⚃						
⚄						
⚅						

RESULT	TOTAL	RESULT	TOTAL
2	*1*	8	
3		9	
4		10	
5		11	
6		12	
7			

Use the result totals from the previous page to complete the bar graph below. Notice the "2" column has been completed for you. Use a ruler to keep your lines straight.
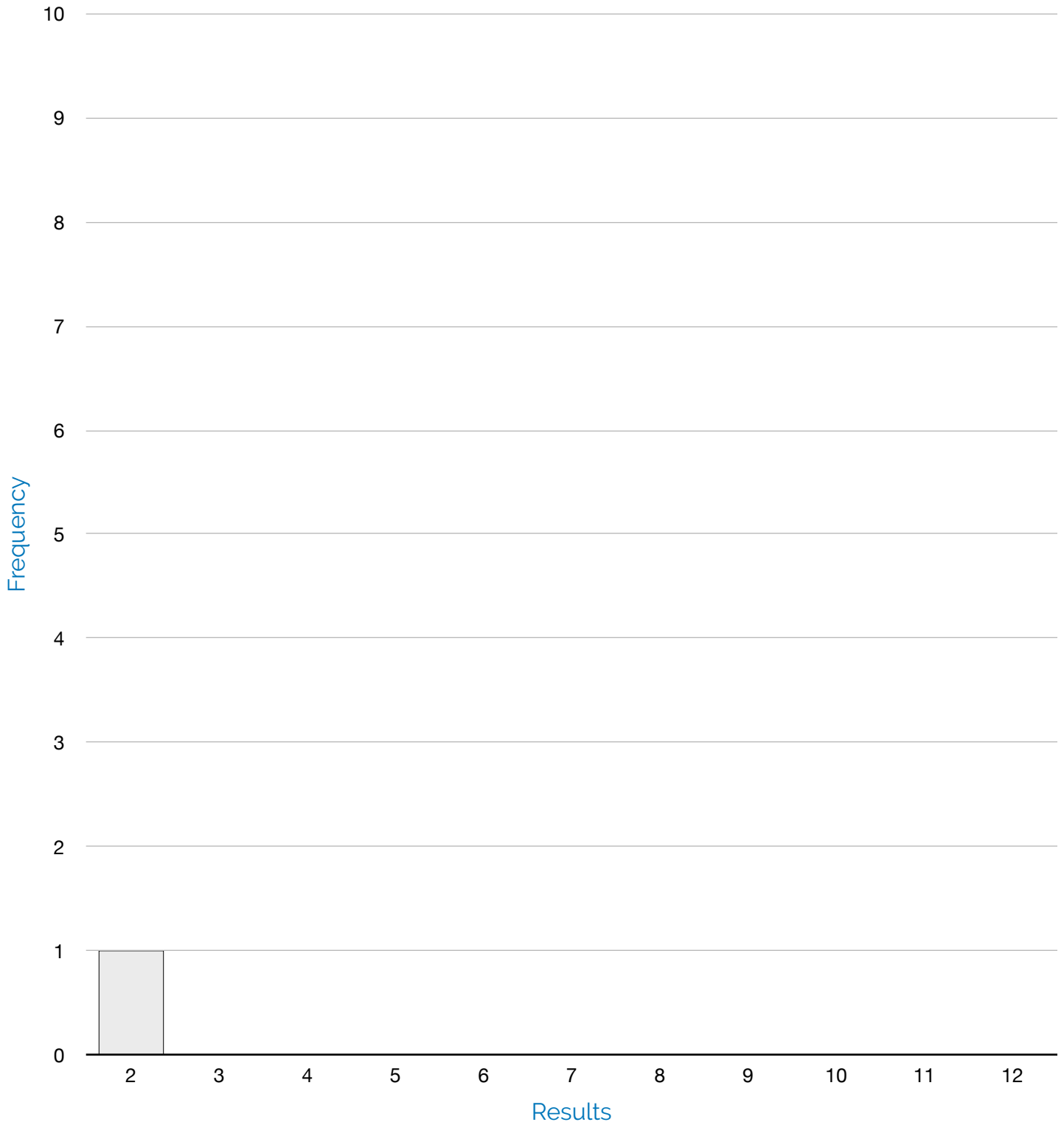
Frequency

Results

Use the table below to track the theoretical probability of rolling each result based on the data from your Possible Results Chart.

RESULT	FREQUENCY	by	TOTAL POSSIBLE	x	100	=	PROBABILITY
2	_____	/	_____ 36 _____	x	100	=	_____ %
3	_____	/	_____ 36 _____	x	100	=	_____ %
4	_____	/	_____ 36 _____	x	100	=	_____ %
5	_____	/	_____ 36 _____	x	100	=	_____ %
6	_____	/	_____ 36 _____	x	100	=	_____ %
7	_____	/	_____ 36 _____	x	100	=	_____ %
8	_____	/	_____ 36 _____	x	100	=	_____ %
9	_____	/	_____ 36 _____	x	100	=	_____ %
10	_____	/	_____ 36 _____	x	100	=	_____ %
11	_____	/	_____ 36 _____	x	100	=	_____ %
12	_____	/	_____ 36 _____	x	100	=	_____ %

Use the table to tally the results of each die roll during the game.

RESULT	TALLY	TOTAL
2		=
3		=
4		=
5		=
6		=
7		=
8		=
9		=
10		=
11		=
12		=

Use the result totals from the previous page to complete the bar graph below. Use a ruler to keep your lines straight.

Frequency

30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0

2   3   4   5   6   7   8   9   10   11   12
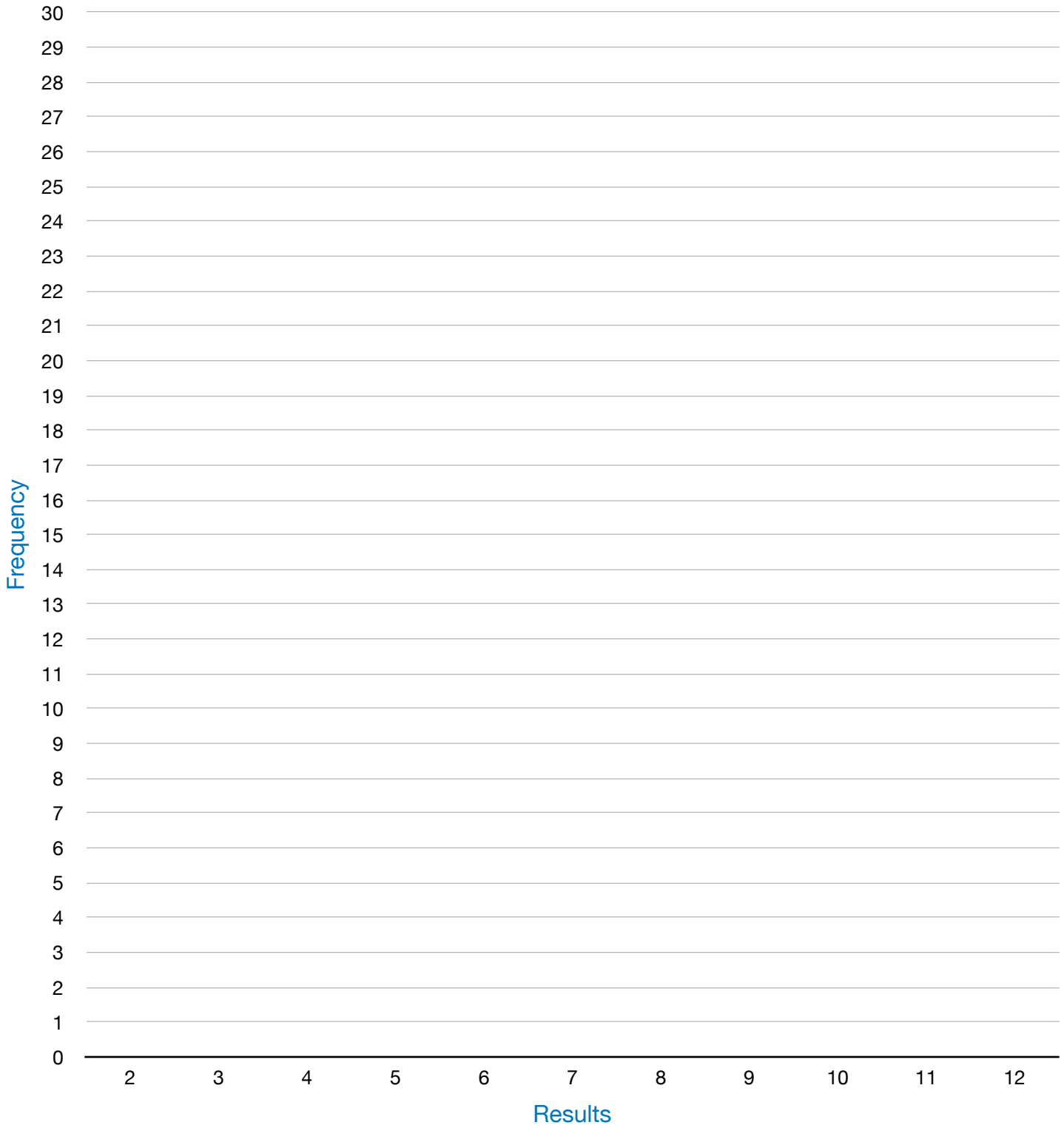
Results

Use the table below to track the probability of rolling each result based on the data from your Field Results - Tally. The TOTAL POSSIBLE is equal to the total number of turns during your game.

RESULT	FREQUENCY	by	TOTAL POSSIBLE	x	100	=	PROBABILITY
2	_____	/	_____	x	100	=	_____ %
3	_____	/	_____	x	100	=	_____ %
4	_____	/	_____	x	100	=	_____ %
5	_____	/	_____	x	100	=	_____ %
6	_____	/	_____	x	100	=	_____ %
7	_____	/	_____	x	100	=	_____ %
8	_____	/	_____	x	100	=	_____ %
9	_____	/	_____	x	100	=	_____ %
10	_____	/	_____	x	100	=	_____ %
11	_____	/	_____	x	100	=	_____ %
12	_____	/	_____	x	100	=	_____ %

1. Based on your Field Results, which result is MOST likely to be rolled?

_____

2. Based on your Field Results, which result is LEAST likely to be rolled?

_____

3. Are your answers for questions 1 and 2 different from the Possible Results Probability? If so, why do you think that is?

_____

_____

_____

_____

4. Why would the designer choose a result of "7" to activate the robber?

_____

_____

_____

5. Knowing what you now know about probability, how would you decide where to place your starting settlements?

_____

_____

_____

6. How would you determine where to place new settlements?

_____

_____

_____

7. Why does the knowledge of probability make you a better Catan player?

_____

_____

_____

* Credits

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About
Game Schooler utilizes modern tabletop games to develop skills in entertaining and innovative ways to increase engagement while bringing people together in an offline world.

Developed by two avid gamers, one a doctor of education, and the other an entrepreneur, Game Schooler began as an idea to use modern tabletop games to educate students in new and engaging ways.

Game Schooler Podcast
The Game Schooler Podcast© is a weekly audio show celebrating the educational value of tabletop gaming. Each week Doug and Michael recommend a family-friendly game and uncover the skills players can learn during gameplay. Every episode includes discussion on the merits of gameschooling and features a Weekly High Five list of additional games listeners may want to explore. Learn More >

Recommended Games
We make recommendations based on educational merits, popularity, production quality, difficulty, play-time, and overall value. It's basically the Colonel's seven secret spices, but for board games!

These games are great additions to any collection, and have been featured on the Game Schooler Podcast or incorporated into Game Schooler Skill-Builders and Discussion Guides. Use the Filter on the left to find a new favorite. Check out the Database >