Da Vinci Dice by Joe Boyden

Can You Crack the Code?

Players: 1 to Many - Ages: 8 & Up - Time: 20min

SCORING FOR EACH ROUND

CRACKED
Write the value of each die in its designated box
Opt: +1 to next round Lock Level
Score: 5 + Bonuses

BUST
When no dice can be LOCKED, Place an "x" in each value box
Score: 0

STOP
Write in value of each locked die
Write in "X" for unlocked boxes
Score: 1 per LOCK + Bonuses

BONUSES

+1 point per die if...

MAX
Circle any max value die roll

RUN*
Boxes in sequence (ex. 6, 7, 8)

SET*
Boxes with same value (ex. 4, 4, 4)

**Horizontal, vertical, or diagonal (see score card for example)*

THE GOAL **3**

THE STORY **3**

PRINT & PLAY CONTENTS **3**

STANDARD RULES **4**
SETUP 4
STARTING A ROUND 4
CRACKING THE CODE 4
LOCKING DICE 5
BUSTING 5
STOPPING 6
SCORE SHEET 7
SCORING OVERVIEW 7
Locked Dice 7
Bonus Points 7
Lock Levels 7
Scoring your Round 7
Scoring your Total 8
SCORING DETAILS 8
Locked Dice 8
Bonus Points 8
Max Rolls: +1 bonus point each 8
Runs: +1 bonus point for each die in runs completed this round 8
Sets: +1 bonus point for each die in sets completed this round 9
Lock Levels 9
Locking Dice by Lock Level 9
Increasing Lock Level by One 9
Resetting Lock Level to One 9
Scoring by Lock Level 10
Scoring your Round 10
Scoring your Total 10

ADVANCED RULES - DICE DRAFTING **10**
SUMMARY 10
ADDITIONAL CONTENTS 11
SETUP 11
STARTING A ROUND 11
TURN OPTIONS 11
Lock 11
Pass 12
Score 12
REROLLING 12
ENDING A ROUND 12

Da Vinci Dice TO GO! Rules - No score sheet needed **13**
SUMMARY 13
LOCK LEVELS 13
SCORING 13

THE GOAL

Roll dice so the higher the number of sides, the higher the value rolled. Crack the Code by rolling the Da Vinci Dice and locking all five in order of both...

1. Number of sides (ex. D4, D6, D8, D12, D20)
2. Increasing values (ex. 2, 5, 8, 9, 14)

You BUST when you roll and can't lock a die because of rule #2 (Increasing values).

Da Vinci Dice is played over eight (8) rounds of rolling multiple times, locking as many of your dice as you can (setting them aside unchanged), and then scoring the round. The player with the most points at the end of the eighth round has harnessed the powers of the Da Vinci Dice and wins!

THE STORY

You and your fellow adventurers have discovered one of Da Vinci's greatest inventions in the form of five, perfectly symmetrical shapes known collectively as the Platonic Solids. These objects share geometric properties unique in all the Universe, and when sequenced properly, transform themselves into philosopher's stones with great powers of Alchemy.
Push your luck in this fast paced game and crack the code of the Da Vinci Dice!

Tetrahedron	Cube	Octahedron	Dodecahedron	Icosahedron
Four faces	Six faces	Eight faces	Twelve faces	Twenty faces

PRINT & PLAY CONTENTS

INCLUDED

- Score Sheets
- Rules

NOT INCLUDED!

- One set of 5 polyhedral dice (D4, D6, D8, D12, D20) minimum
- Pencils

STANDARD RULES

SETUP

Each player should have their own score sheet and pencil.
One set of dice can be shared, with each player taking their turn and passing the dice.
However, each player can also have their own set of dice for faster action (and NO dice passing), as player rounds can be taken simultaneously!

STARTING A ROUND

Players start by rolling all five dice, and sorting them by number of sides; D4, D6, D8, D12, D20.

Example: Dice sorted by number of sides:

D4 D6 D8 D12 D20

CRACKING THE CODE

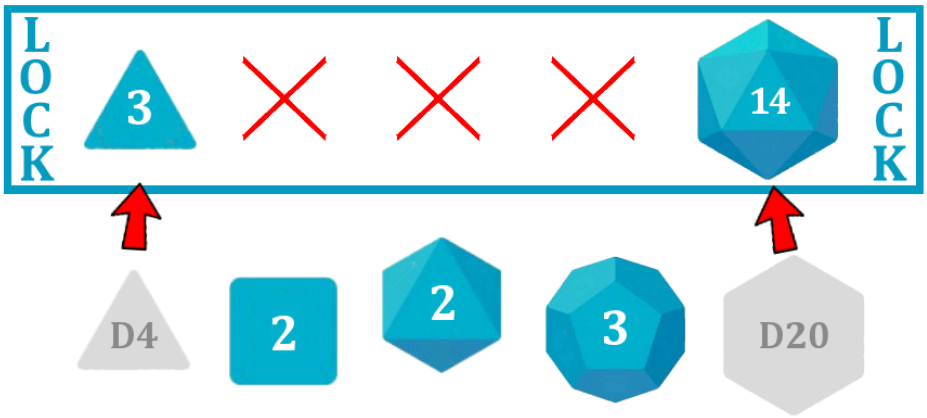
After sorting all five dice by number of sides, if the values rolled are ALL in increasing order from one die to the next (NO ties), you Crack the Code and you may score the round. If you're lucky, this can happen on the very first roll, but typically it will take a few rolls to accomplish.

Example: All numbers rolled increase in value (higher than the dice before them)!

LOCKING DICE

If you do not Crack the Code on any given roll, you must LOCK one or more dice (depending on your Lock Level); these are placed out in front of the rolling area with their current value locked in, and may not be rolled again. The remaining dice may be rerolled if the player chooses.

Example: For this roll, the D4 and the D20 can be locked meeting the requirement of locking one or more dice in order to roll again. The remaining dice can NOT be locked, as they do not increase in value; neither the D6, D8, and D12 are higher in value than the D4, which was locked. However, since the player was able to lock at least one die, they can roll again.



Player has locked at least one die, and so may reroll the rest.

BUSTING

After rolling again (should you dare), if NO dice can be locked (because none of the new values rolled increase according to their sort order), the player BUSTS ending the round, scoring zero.

Example: With one die left, this player needs to roll a 9 or higher on their D12. They roll 7 which is not greater than the previous die, so they BUST!

Player rolls a 7, which can not be locked as it is not greater than the 8 - they bust!

STOPPING

A player may choose NOT to roll again (due to bad odds, for example) and score the round.

> Example: With one die left, this player needs to roll a 5 to Crack the Code. But with only a one in six chance, the player decides to STOP and score the points they have (instead of taking the chance of busting.)

Player needs a 5, but doesn't like their odds - they STOP & enter their score.

SCORE SHEET

SCORING OVERVIEW

Locked Dice

Write down the number rolled and score 1 point for each locked die.
Mark an “X” for any die not locked (0 points).

Bonus Points

+1 point for each die locked at max value (e.g. six on a D6).
+1 point for each locked die in a run or set of 3 or more.

Lock Levels

Your Lock Level determines HOW MANY DICE YOU MUST LOCK ON EACH ROLL that round. If you Crack the Code (Lock all five dice), add one to your Lock Level for the NEXT round, or set your Lock Level all the way back to “1” if you do not. All points are multiplied by your Lock Level, so the higher your level, the higher your score!

Scoring your Round

Add up your Locked Dice points & Bonus points, and MULTIPLY them by your Lock Level; enter this value in your Round score box. *(Dice points + Bonus points) x Lock Level = Round score*

Scoring your Total

Take your Total from your previous Round, and add it to your current Round score and enter it as your new Total. *Previous Total + Current Round = New Total*

SCORING DETAILS

Locked Dice

At the end of your round, use the boxes in columns D4, D6, D8, D12, D20 to write down the number rolled for each locked die.
If you CRACKED THE CODE and locked all five dice, write down the number rolled for each die in the appropriate column. Add 1 to your Lock Level for the next round if you choose OR if you choose not to, reset your Lock Level back to 1.
If you STOPPED (ended your round with unlocked dice that you did not reroll), write the number rolled for each locked die, and mark an “X” in the appropriate box for each unlocked die; score 1 point for each locked die, but set your Lock Level to “1” for the next round since you didn’t Crack the Code by locking all five dice.
If you BUSTED, put an “X” in each box for this round; your score is zero for that round and your Lock Level is set to “1” for the next round.

Bonus Points

Bonus points are scored in a round by locking dice at their maximum values, such as locking an 8 for the D8, or by creating a run (numbers in sequence) of 3 or more boxes, or a set (numbers of the same value) of 3 or more boxes. Score +1 bonus point for every die in every bonus condition, allowing some dice to potentially score multiple bonus points (such as a Max value die that is also part of a Set or Run).

Max Rolls: +1 bonus point each

- Any die that is locked at the highest number possible receives 1 bonus point (in addition to the 1 point scored for being locked.)
- Circle Max Rolls on your score sheet and add the bonus points to your score this round.

Runs: +1 bonus point for each die in runs completed this round

- Runs are a sequential series of at least 3 values in numerical order, either increasing or decreasing. For example, adjacent boxes containing values 4, 5, 6 or 11, 10, 9 would both be considered runs.
- Runs can be in ANY direction, up, down, diagonal, or horizontal (the only run possible in the first round would be a horizontal run of the dice locked that round.
- Runs can be greater than 3 values, meaning they can GROW and be used to score additional bonus points in future rounds. For example, if you had a vertical or diagonal run of 3 that you scored, you could potentially increase it to a run of 4 on the next round, and score 4 additional bonus points that round!
- Once a run is made, circle it and add the bonus points to your score this round.

Sets: +1 bonus point for each die in sets completed this round

- Sets are a series of at least 3 numbers of the SAME value, such as 7, 7, 7 all in adjacent boxes. Sets can ONLY be up, down, or diagonal since dice of the same value cannot not be locked together horizontally in the same round - due to this, sets are not possible until the 3rd round.
- Sets can be greater than 3 values, meaning they can GROW and be used to score additional bonus points. For example, if you had a vertical or diagonal set of 3 that you scored, you could potentially increase it to a set of 4 on the next round, and score 4 additional bonus points that round!
- Once a set is made, circle it and add the bonus points to your score this round.

Lock Levels

Lock Levels determine your risk AND your reward by serving two functions: determining how many dice you must lock on each roll, and how much to multiply your round points by. Players start the game at Lock Level 1, meaning they must lock a minimum of 1 die each roll (until they Crack the Code, Stop, or Bust), and that there is no multiplier bonus on the first round (since any value multiplied by 1 is that same value). Your Lock Level either goes up by 1 for any round when you Crack the Code, or is reset back to 1 in all other situations.

Locking Dice by Lock Level

Your Lock Level indicates HOW MANY DICE YOU MUST LOCK ON EACH ROLL for that round. If you lock more dice on one roll than required, you still must lock the minimum on your next roll. If you have fewer dice remaining than your level, you must lock them all on your next roll. For example, if you are on level 3, and only have 2 dice remaining after your first roll, you must lock both if you choose to roll again or you bust.

Level 1: Lock 1 die minimum each roll or bust (5 possible rolls)
Level 2: Lock 2 dice minimum each roll or bust (3 possible rolls)
Level 3: Lock 3 dice minimum on your first roll, and then the rest on your next roll
Level 4: Lock 4 dice minimum on your first roll, and then the last die on your next roll
Level 5: Lock all 5 dice in a single roll or bust

Increasing Lock Level by One

Whenever a player Cracks the Code by locking in all 5 dice, their Lock Level increases by 1 for the next round, up to a maximum of 5. Should a player Crack the Code while at level 5, their Lock Level will remain at level 5 for the next round (there is no level 6).

Resetting Lock Level to One

Although Lock Levels can increase 1 at a time, any other outcome will cause a player's Lock Level to be reset back to 1, no matter their current level. This happens anytime a player fails to Crack the Code, or chooses* not to increase their level:

- When a player Busts, set Lock Level back to 1
- When a player Stops, set Lock level back to 1
- When a player chooses*, set Lock level back to 1

* Since the risk of Busting increases with your Lock Level, a player may choose not to increase their level (and reset back to one) for the same strategic reasons they may choose to Stop during any given round - they may not like their odds! Run and Set opportunities may also lead to this decision.
For example, a player may be on level 3, which requires they lock 3 dice on their first roll, and 2 on their second roll (since there are only 5 dice total). If they Crack the Code by locking all 5, they then have the option to advance to level 4 for the next round. However, since locking 4 dice in one roll would be required, they may decide it is too risky, and reset their level back to 1 instead (their only other choice).

Scoring by Lock Level

After counting your locked dice points and adding all bonuses for the round, multiply your points by your Lock Level to get your Round score.
For example, say a player has 4 locked dice with one bonus point for a Max value. Their points add up to 5, but they are on level 3, so their score for the round is 5 x 3, or 15.

Scoring your Round

Add up your locked dice points & bonus points, and MULTIPLY them by your Lock Level; enter this value in your Round score box. *(Locked dice + Bonus points) x Lock Level = Round score*

1. Did you bust? Stop here if you did - your score is **zero** for this round
2. Count each locked die as 1 point - if you Cracked the Code, you will have 5 points
3. Add up your bonuses to combine with your lock dice count
    a. Max: +1 point for any locked die that is at its max value (ex. 4 on a D4)
    b. Run: +1 point for each die in a run of 3 or more completed this round
    c. Set: +1 point for each die in a set of 3 or more completed this round
4. Multiply your points by your Lock Level - this is your final Round score

Scoring your Total

Take your Total from your previous Round, and add it to your current Round score and enter it as your new Total. *Previous Total + Current Round = New Total*

ADVANCED RULES - DICE DRAFTING

SUMMARY

This variation adds a “cut throat” element to the game, and requires one set of dice for each player. ALL dice are rolled together at once in the center at the start of each round to form a shared pool of dice to select from. Players then take turns selecting (i.e. “drafting”) the die of their choice from the center to lock in front of them. This version is best played with a small number of players.

ADDITIONAL CONTENTS

NOT INCLUDED!

- One set of 5 polyhedral dice PER PLAYER
- Round marker* (large)
- Roll marker* (small)

** A large coin and small coin work well for this purpose.*

SETUP

Each player should have their own score sheet, pencil, AND set of Da Vinci Dice.
Determine who will be the starting player (for example, the youngest player.)
Give ALL sets of Da Vinci Dice to the starting player - they will roll them all at once!
Give both turn markers (large and small) to the starting player

STARTING A ROUND

The starting player will roll ALL dice at once in the center where all players can reach.

The starting player will then choose ONE die from the pool, and place it in front of them as their first locked die.
Proceeding clockwise one at a time, each player will then select a single die to lock in front of them, continuing back around to the starting player again, and to each player again, around and around until a REROLL condition is met (everyone has passed, busted, or Cracked the Code).

TURN OPTIONS

When it is your turn to pick a die during a round, you may do any of the following:

Lock

Select one die from the center and place it in front of you as one of your five dice. You cannot select a die of the same type you already have locked (if you already have a D4 locked, you cannot select another.)
Lock Levels still apply! Even though you can only lock one die a turn, you must still lock the number of dice according to your Lock Level - if you do not, you bust!
For example, a player may be on Lock Level 3, locking one die on their first turn, and a second die on their next turn. However, on their 3rd turn, there are no eligible dice available for them to select, so they automatically bust. The round is over for them with a score of zero.

Pass

You may "pass", and not select a die on any given turn. If at least one player selects and locks a die, the round will continue, and players will have another opportunity to select a die, even if they passed on the last turn.
However, if ALL players pass in a round, the remaining die are passed and rerolled.

Score

You may end your round, and enter your score on your sheet, if you…

a. Crack the Code
b. Bust
c. Stop

After scoring, place your pencil in front of your locked dice to indicate that you are inactive until the next round begins. Your locked dice remain with you until then.

REROLLING

Rerolling occurs whenever active players have ALL passed (no one wants to lock any of the remaining dice), but the round is not necessarily over yet (not everyone has scored the round).

Pass ALL the remaining (unlocked) dice to the player to the left of the last player that rolled, along with the Roll Marker (small). (The Round Marker remains with the original player until the round is scored by everyone, and a new round is started.)

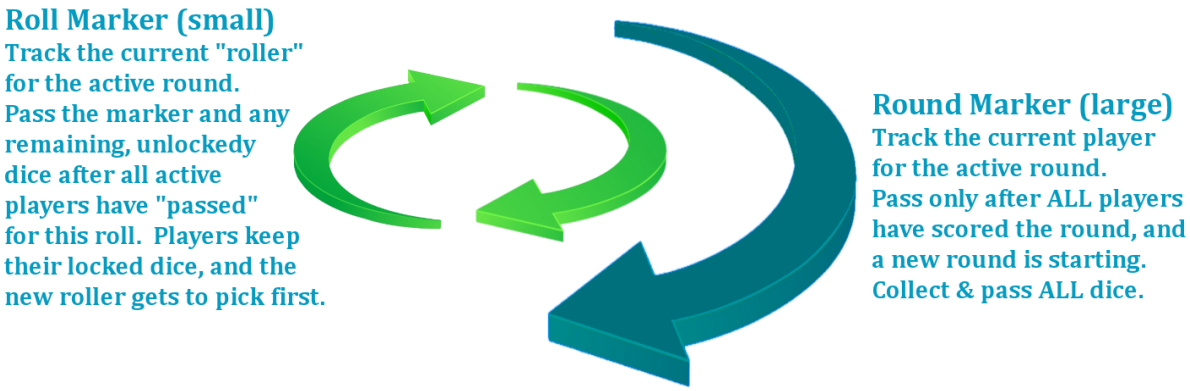
The player with the Roll Marker then rerolls all the remaining dice, and begins by selecting one to lock or passing.

NOTE! Any player who wishes to stop and score prior to the reroll, **must declare so before the dice are rolled**. Once the dice are rolled, all active players who have not yet scored the round on their sheet are now **committed** to continue selecting dice up to their Lock Level or busting.

Once all players have passed, the Roll Marker and all remaining dice are then passed clockwise to the next player.

ENDING A ROUND

Once all players have completed the round and entered their scores, a new round may begin. Gather all locked and unlocked dice, and BOTH markers (Round Marker & Roll Marker) to the player to the left of the player that last had the Round Marker.



Da Vinci Dice TO GO! Rules - No score sheet needed

SUMMARY

For this game variation, you only need one set of Da Vinci Dice, and a way to track player scores (paper & pencil). Lock Levels are universal starting at level 1 for the whole group.
On each player's turn, they will roll until they stop, bust, or Crack the Code. Their score is written down, and it is the next player's turn.
Set a target score of 30 (or more, or less). When a player reaches that number, players may finish out the round, and the player with the highest score wins!
For ties, tying players may play a "Sudden Victory" round to determine the winner.

LOCK LEVELS

All players share the same Lock Level at all times. For the first round, the level is 1 until all players have had their first turn and completed the round. If ANY player Cracked the Code, the Lock Level for the next round goes up to level 2. Even if just ONE player Cracks the Code and all the others bust, the Lock Level still goes up for all players in the next round.
If no players Crack the Code in a given round, the Lock Level automatically goes back to 1.
If the Lock Level is at 5 and a player Cracks the Code, the Lock Level remains at 5 for the next round.

SCORING

Scoring is exactly the same as with the Standard Rules with the following exceptions & notes:

- Sets are not possible in the TO GO version, as rolls from past rounds are not recorded (only the totals), and dice of the same value (ties) may not be locked
- Runs are ONLY possible if they are achieved during the same turn; +1 bonus point for each die in the run (up to 5 max if all dice are in a sequence, such as 3, 4, 5, 6, 7)
- Max Rolls are scored normally; +1 for each
- Players who are unable to lock the necessary number of dice for the group Lock Level, bust, scoring zero for that round
- Players who do not bust, multiply their points by the group Lock Level for their score

DA VINCI DICE by JoeBoyden.com

One or more players, ages 8+

- "Push your luck" Roll & Write -
Roll & sort polyhedral dice by no. of sides. Lock in dice that increase in value. Lock all 5 to "Crack the Code" or bust!

	Lock Level		D4 Value <	D6 Value <	D8 Value <	D12 Value <	D20 Value		Scoring Round	Total
A	1	x						=		
B		x						=		
C		x						=		
D		x						=		
E		x						=		
F		x						=		
G		x						=		
H		x						=		

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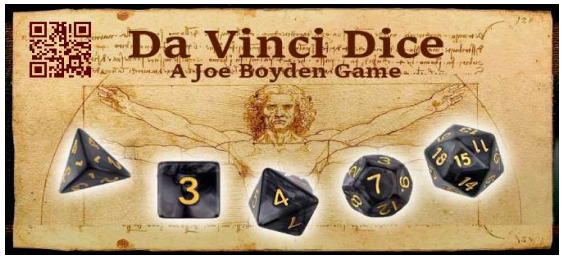

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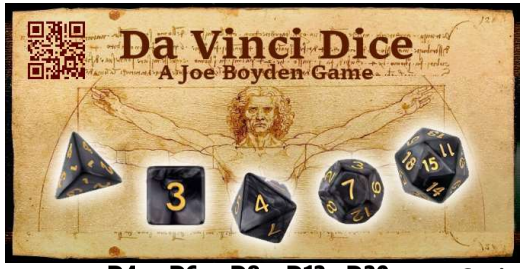

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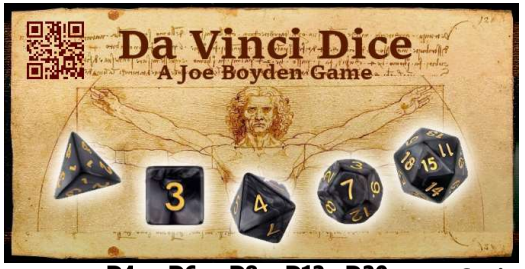

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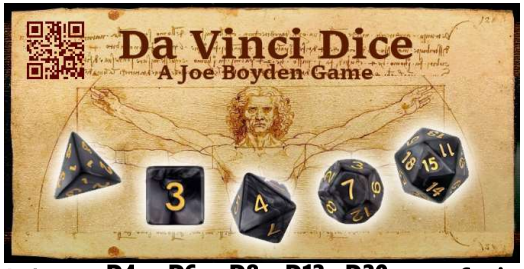

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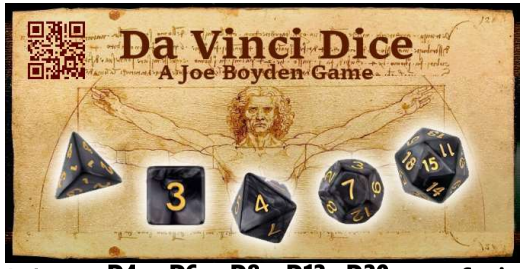

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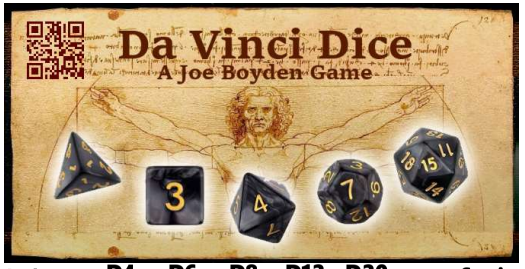

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