

Tinners' Trail

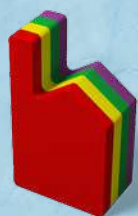
RULEBOOK

Tinners' Trail is set in early nineteenth century Cornwall, and focuses on the copper and tin mining industries that made the county famous. It was during this century that Cornwall became one of the most important mining areas in the world. It produced the tin that was used in many alloys, and the copper that was used to clad the ships of the Royal Navy. It was the demand for more efficient water pumps in the mines that led to the development of the steam engine, which in turn led to the first steam trains. When Cornish mining went into decline Cornishmen moved around the world, taking their valuable skills with them, helping to shape the modern world of mining.

The name of the game refers to the long walks that the miners had to make from their homes to the mines. The path to the mine would be known locally as the 'Tinners' Trail'.

The game is for three or four players and should take around sixty to ninety minutes to play.

COMPONENTS



24 Player Mine pieces
(6 per player)



12 Player Money &
Time tokens
(3 per player)



48 Player Investment
cubes
(12 per player)



One black pawn
*Used to indicate which
area is being auctioned.*



8 Steam pump
discs



10 Miner pieces



8 Port pieces



3 Train pieces



4 Adit pieces



65 Water cubes



60 Copper cubes



50 Tin cubes



3 special dice

The resource cubes in the game are not a hard limit, and if they run out, then players should find some way to represent the excess cubes.

OVERVIEW

Each player represents a mining conglomerate. These were coming into being at this time as individual mining operations formed mergers and were taken over.

At the start of the game copper and tin deposits (represented by orange and white cubes) will be placed on the board. In addition, each deposit will have a number of dark blue cubes added to it – these represent the water that would flood the mines. The more water cubes present in an area the more expensive it is to mine the ore. You can, however, remove water cubes in a variety of ways, such as digging adits (drainage tunnels) or using steam pumps.

The game lasts for four turns. Each turn is divided into seven phases.

► Phase One - Determine ore prices

Randomly determine the price of tin and copper ores for the coming turn.

► Phase Two - Available developments

Place miners, ports, trains, and adits in the Available Developments box, as well as placing steam pump discs in their boxes. How many pieces are available depends on which turn it is.

► Phase Three - Player actions

This is the core of the game. Each action takes a certain amount of time, which means moving your token along the Time Track. The player who has used the least amount of time in the current turn is the active player, which means that you may be able to perform several actions in succession.

The most complicated action is building a mine. The active player selects an area and an auction occurs to see who will build a mine in the selected area. If the active player does not win the auction then he will remain the active player and can select another action, which may be the same one.

The map is divided into areas, which at the start of the game may contain orange copper cubes, white tin cubes, and dark blue water cubes. When a player chooses to mine ore they can

take a number of copper and tin cubes from the area equal to the mine's capacity. A mine has a basic capacity of two, but an extra miner, port or train will each increase the mine's capacity by one. The financial cost of mining each cube is equal to the number of water cubes in the area. After you have taken ore from an area you must add one extra water cube as the mine has been dug deeper.

There are a number of ways that you can remove water cubes from an area. Steam pumps, ports, and trains can all be used to remove water cubes.

If you are short of money then you can choose to sell pasties, earning £1 in the process.

This phase ends when all of the players have passed.

► Phase Four - Sell ore

You must now sell all of the copper and tin ore you mined for money.

► Phase Five - External investments

Then you have the opportunity to convert some or all of your money into external investments. The return on investments declines over the course of the game, so the earlier you invest the better the return that you get. However, you will need to judge carefully how much money that you will need for the following turn to take part in auctions and mine more ore. Keeping less than £10 for the next turn is taking a big risk.

► Phase Six - Prospecting

The two players who are first and second on the Order of Play box each carry out a prospecting action. They choose an area that has no cubes in it and roll the dice to see what is found.

► Phase Seven - End of turn

If four turns have passed then the game ends and the player with the most victory points from investments is the winner. Otherwise you start a new turn. Note that the only way to score victory points is by investing your money outside of Cornwall.

Ore Prices. Roll all three special dice to determine the price of tin, and roll again to determine the price of copper. The total thrown is modified on the first and last turns, and also if the current price is at the highest or lowest level.

Time Track. When you use Time Points you move your player token along this track, from one to ten.

Clear Areas. There are eight clear areas that do not start with copper or tin cubes in them. You do not roll to place cubes in these at the start of the game. You can still build mines in these areas, and you will also be able to prospect in these areas later, hoping to find rich ore lodes.

Order of Play box.

Starting areas. These areas start with tin and copper cubes in them. You also roll the dice to generate additional cubes for each of these areas at the start of the game.

Available Developments. Miners, ports, adits, and trains that are available for placement will be placed here in Phase two.

Steam Pump boxes. Steam pump discs are placed here during Phase two.

If a player has more than £99, then place a marker on the £100 or £200 note, and use the money track for the remainder.

External Investments. You pay to place cubes here to earn victory points.

Money track. Keep a record of your money using player tokens.



STARTING THE GAME

You should select a set of pieces, which will consist of six mines, three player tokens and twelve investment cubes.



For the first turn randomly determine the order of play. Mark the order of play by placing player tokens in their respective positions on the Order of Play box.



Two of your Player tokens are used to record your money on the Money Track. Each player starts the game with £15. Place one of these player tokens in the £15 space on the money track.



At the start of the game place a number of copper and tin cubes to match the number shown in each area. Now roll all three special dice one area at a time for each of the areas that starts with cubes in it, and add the cubes indicated by the dice to that area. Do not roll the dice or add any cubes to any of the clear areas – areas start the game empty of cubes unless there are white or orange cubes printed in that area. (See example below).



EXAMPLE: Area "1" starts with one tin and one copper cube. The three dice rolled for that area show: White (0), Orange (2) and Blue (2). This means that two copper cubes and two water cubes are added to the starting content of area "1". Repeat this procedure with any other area that shows starting cubes inside of it (like the areas "2", "3" and "4"). However, empty areas like the ones numbered "5" and "6" here, will not be filled up with any cubes at all at the start.

PLAYING THE GAME

The game is divided into four turns. In each turn you must complete the following phases:

1. Determine ore prices
2. Available developments
3. Player actions
4. Sell ore
5. External investments
6. Prospect
7. End of turn

► Phase One - Determine ore prices

The price of copper fluctuated in an unpredictable manner depending on the discovery of cheap deposits elsewhere. Drops in the price would cause great suffering in Cornwall as mines closed down. Some mines would switch to tin mining, whose price was more stable.

First determine the price for tin. Roll all three dice and add the numbers together. Compare the total to the values in the middle row of the Ore Price table. Place a white tin cube on the table to mark the current price of tin. Roll the dice again to determine the price of copper, using an orange cube to mark the Copper price.

In the first turn you should add one to the total rolled when determining the price for both ore types. This reflects the fact that the metals were in high demand at this time.

In following turns the old price may affect the new price of ore. If the old price was at the highest level then subtract one from the total shown on the dice. If the old price was at the lowest level then add one to the result shown on the dice.

In the last turn you should subtract one from the totals rolled, which represents the way that increasing competition from other mining areas was driving down the prices of the metals. This final turn modifier should be applied as well as any modification due to the previous turn's price.

EXAMPLE: In the first turn the total shown on the dice for tin is two. As it is the first turn one is added to this, making a total of three. A white cube is placed in the £4 box for tin. The dice are rolled for copper and show a total of six, which is increased to seven for the first turn. An orange cube is placed in the £8 box.

Next turn, when the price of tin is determined one will be added to the total on the dice as it is currently at its lowest possible price.



► Phase Two - Available Developments

As miners had to dig deeper to reach the lodes they developed new techniques and technologies to help remove water and increase their capacity to get the ore out.

Each turn a certain number of developments will be available to be selected as actions by the players.

Remove any pieces left in the Available Developments box from the previous turn. Now restock it according to the Developments table.



EXAMPLE: The Available Developments box should look like this at the start of the third turn.

Check the column for the current turn to see how many of each development should be placed in the Available Developments box.

You will also need to place Steam Pump discs in the boxes indicated. In the first turn you place one disc in the first box. In the second turn you place one disc in the first box and two discs in the second. In the third

turn you place one disc in the first box, two discs in the second box, and two discs in the third box. In the fourth turn you place one disc in the first box, two discs in the second box, two discs in the third box and three discs in the fourth box.

The improve Steam Pumps action can only be selected once in the first turn, but may be chosen twice in the second turn, three times in the third turn and four times in the fourth turn. When choosing this action players will usually select the largest available stack of Steam Pump discs.

► Phase Three - Player Actions

This is the longest and most important phase of each turn. Each player will have the opportunity to take a number of actions to build, improve, and operate mines.

Each action takes an amount of time to perform. The amount of time each action takes varies, as shown on the Action Display. Each player has ten Time Points to spend on actions during this phase. Players record the amount of Time Points they have used on the Time Track. The order of play is determined by how much time each player has spent during the phase.

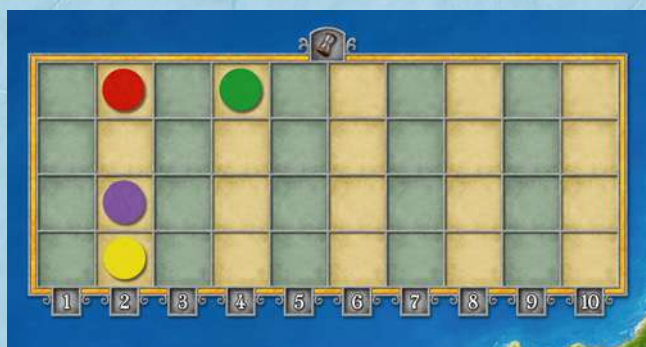
During the early part of each turn the active player is always the player who has their token left-most in the Order of Play box. If there are no tokens in the Order of Play box then the active player is the one who has spent the least amount of Time Points.

If more than one player is tied for the fewest Time Points then the player closest to the top of the column is the active player. Note that a player will be able to take several turns as the active player so long as all of the other players remain ahead of him on the Time Track.

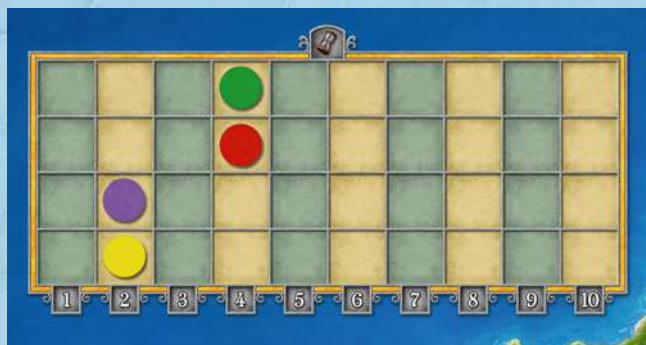
There are nine actions for a player to select from. Each costs a number of Time Points. After the active player has completed the action he should move his token a number of columns along the Time Track to record how many Time Points he has used. If this results in his token finishing in the same column as another player's token then the active player's token is placed in the first empty space below in the same column. Otherwise, the active player's token is placed in the top space in the column.



EXAMPLE 1: Here purple will be the next active player as he is left-most in the Order of Play box.



EXAMPLE 2: Here red will be the active player in this example as his token is highest up the column, with the least amount of time spent.



EXAMPLE 3: The red player performs an action that uses two points of time. This takes him to the '4' space. As green already occupies the top space red must go in the space underneath. Purple would now be the active player. If purple also used two Time Points then his token would end up being placed in the space under the red token.

When you are the active player you **MUST** perform one action from the following list:

- **Build mine**
- **Mine ore**
- **Build port**
- **Place miner**
- **Build adit**
- **Build train**
- **Improve steam pumps**
- **Sell pasties**
- **Pass**

You can only perform an action if you have enough Time Points available to complete the action. If this means that the only action available is the PASS action then you must select it. Once you have passed your token will be placed in the Order of Play box and you will not be able to perform any more actions this turn.

The action phase ends when all of the players have passed. Once all but one of the players have passed the remaining player may perform just one more action (if he has the Time Points available), before then passing.

Some of the actions require you to take a piece from the Available Developments box. If the desired piece is not in the box then the corresponding action cannot be selected (e.g. as there is only one adit available each turn the Build Adit action can only be performed once and by just one player each turn).

ACTION BUILD MINE

When you take this action you choose an area of the board and mark it by placing the black pawn in the area. The right to build a mine in this area is now put up for auction. The player selecting this action must bid first, and must bid at least £1. The player to his left now makes a higher bid, or passes and drops out of the auction. Once a player has dropped out he cannot rejoin the current auction. Bidding continues clockwise around the table until all but one of the players have dropped out.

The player who wins the auction must pay the amount of his bid (adjusting his tokens on the Money Track as necessary) and places one of his Mine pieces in the area, and also uses two Time Points. Note that the player with the winning bid need not be the active player, and when this is the case, the active player will immediately be able to select another action).

Players may take part in the auction even if their tokens are further along the Time Track than the active player, so long as they have the two Time Points required to complete the action. However, players may not take part in the auction if they have selected the Pass action, if they have less than two Time Points remaining, or if they do not have enough money to bid.

When choosing which area to put up for auction you can only select an area that does not already contain a mine. No area can ever contain more than one mine.

You could choose to put up for auction an area that has no cubes in it. After the auction has been completed, and the mine has been built in one of these clear areas, roll the three dice to see how many copper, tin, and water cubes are added to the area. This is done after the Time Points and money have been spent – you do not know what resources there are until after you have built and paid for the mine.

No player can ever build more than six mines. Once built a mine remains on the board for the rest of the game and cannot be sold, traded, or removed. Each area cannot contain more than one mine.

ACTION MINE ORE

Once you have a mine you may want to use it to get ore out of the ground. The Mine Ore action allows you to take a certain number of copper and tin cubes from one area. You can only mine ore in an area where you already have a mine.

Each mine has a basic Mining Capacity of two. This means that you can remove a total of two tin/copper cubes from that area. This Mining Capacity is increased by each port, miner, and train in the area. Each of these developments in an area will increase that mine's capacity by one (and only one of each development can be built in an area).

There is also a cost to Mine Ore. Each tin/copper cube that you remove from an area will cost you an amount equal to the number of water cubes in that area, i.e. the more water the more expensive it is to mine the ore. Note that you do not receive any money for the ore until later in the turn, so the amount of money that you have available will limit your ability to Mine Ore.

If there are no water cubes in an area then there is no cost to Mine Ore in that area.



EXAMPLE: Here you have a Mining Capacity of three, two for the mine and one for the miner. If you chose to remove three cubes then you would have to pay £9, £3 per cube.

You choose which ore cubes you take from an area. You can remove any mix of tin and copper cubes that you wish, up to your Mining Capacity. You can also choose to remove fewer cubes than your Mining Capacity.

When you take tin and copper cubes off the board you must place them in front of you – they will be sold later in the turn. There is no limit to the number of cubes that you can hold during a turn.

IMPORTANT: After you have mined an area you **MUST** place one water cube in the area. The mine has been dug deeper and will be more expensive to mine in future.



EXAMPLE: You decided to remove three copper cubes from the area as the price of copper is high. After removing and paying for the cubes add a blue water cube to the area.

When all of the copper and tin cubes have been removed from an area mines, developments, and water cubes remain on the board.

The Mine Ore action also uses one Time Point.

ACTION BUILD PORT

Many of the coves around Cornwall's craggy coast contain the remnants of old mining ports. Ports were built to bring coal in to feed the energy hungry steam pumps and ship ore out to the



smelting plants in South Wales. Although Cornwall was blessed with a cornucopia of metals she was endowed with no coal at all, which meant that it all had to be imported.

There must be a port piece in the Available Developments box in order to select this action. You take one port piece and place it in any area of your choice. You must select an area that has at least one border touching the sea. The chosen area does not need to contain one of your mines, nor that of any other player. Only one port piece can be placed in an area, and once placed it cannot be moved or removed.

When you place a port in an area you immediately remove one water cube from that area. The port also increases the Mining Capacity by one in that area, as more ore can be shipped out of Cornwall.



EXAMPLE: The red player places a port in the same area as his mine. He removes one water cube from that area. His Mining Capacity is now three for that area.

Building a port uses two Time Points. There is no financial cost.

ACTION PLACE MINER

The history of tin mining in Cornwall goes back millennia, to the time of the Phoenicians. Copper mining was a more recent development, driven by the demand of the Royal Navy for sheathing for their ships. As copper and tin mining expanded in the 19th century so in turn the demand for labour increased.



There must be a miner piece in the Available Developments box for you to select this action. You take one Miner piece from the box and place it in any area of your choice (you do not have to place it in an area where you have a mine). Only one miner can be placed in each area. Once placed the piece remains there for the rest of the game.

A miner will increase the Mining Capacity of an area by one.

Placing a Miner takes one Time Point. There is no financial cost.

ACTION BUILT ADIT

The biggest problem facing the Cornish miner was pumping water out of the mines. This required a lot of energy, either in the form of horses or coal. One solution to reducing the amount of energy required was to dig a tunnel into the side of a hill to meet the mine shaft. The water raised could now be dumped into this tunnel,



known as an 'adit' rather than pumping it all the way up to the surface. In the course of building an adit it was quite common to come across new lodes of copper and tin.

There must be an adit piece in the Available Development box for you to select this action. You take the piece and place it such that it connects two adjacent areas, lying across the border. You immediately remove one water cube from each of the two areas. You also add one copper and one tin cube to each of the two areas.

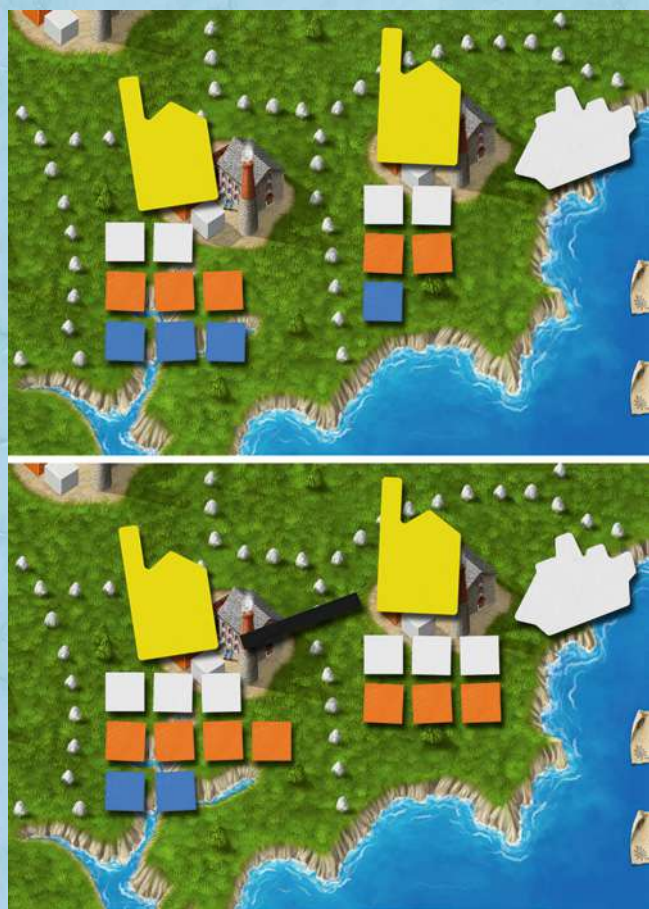
The adit remains in place for the rest of the game. Only one adit can be built across a single border, but it is possible for an area to have further adits connected to it as long as they are built across borders that did not have adits across them.

Building an adit takes three Time Points. There is no financial cost.

The two areas connected by an adit do not have to contain mines.

It may be that only one of them does. You would still remove Water cubes and add copper and tin cubes as normal so long as the area already contained at least one cube.

You do not add cubes to a clear area when you build an adit. If the area has cubes placed in it later on, then one extra tin and one extra copper cube are placed in the area, and one less water cube.



EXAMPLE: Here we have a 'before' and 'after' example of placing an adit. One water cube has been removed from each area and a tin and copper cube has been added to each area. Note that the yellow player has removed all of the water cubes from one of his areas – if he performs a Mine Ore action he will not have to pay any money to remove ore cubes from this area.

ACTION BUILD TRAIN

Probably Cornwall's most famous son is Richard Trevithick who built the first steam train. Once again the driving force was to be able to bring more coal to the mines to power the steam pumps.



You can only select this action if there is a train piece in the Available Developments box. You take the train piece and place it in an area of your choice (it does not have to contain one of your mines). Only one train piece can be placed in each area. Once placed a train piece cannot be moved or removed.

When you place a train piece you remove two water cubes from the area that the train has been placed in AND one water cube from every adjacent area. The Mining Capacity of any mine in the same area as the train is increased by one. Note that any mines in adjacent areas do not have their Mining Capacity increased.

You can have a maximum of one train in each area. The train remains in that area until the end of the game.

It takes two Time Points to build a train. There is no financial cost.



EXAMPLE: In the example above purple places a train in the area indicated. Two water cubes are removed from that area, and one from each adjacent area. The Mining Capacity in the area with the train will now be three.

ACTION IMPROVE STEAM PUMPS

Hopefully by now you will have realized the importance of pumping technology in mining. Steam power was developed primarily to pump water out of mines, using it to power machinery was a later development. Engineers were continually making improvements to steam pumps, although they had to

be careful not to infringe James Watts patent. Generally the aim was to use less coal to produce more power, as coal was a heavy commodity to import.

Depending on the turn number there will be a number of stacks of white steam pump discs on the Steam Pump track, just below the Available Developments box. As an action you can take one stack of steam pump discs and use them to remove water cubes from the board. Each disc allows you to remove one Water cube. You may remove water cubes from any area you choose, even one with no mine. If you have more than one steam pump disc to use you may remove water cubes from one single area or a combination of different areas. You do not have to use all of the discs, but they cannot be saved for later in the game.



EXAMPLE: The Steam Pump display looks like this at the beginning of the fourth turn. If you select the Improve Steam Pumps action you can take the stack of three steam pump discs. This would allow you to remove up to three water cubes from anywhere on the board. The next player to select this action will probably take a stack of two steam pump discs and remove two water cubes.

After removing water cubes all of your steam pump discs should be returned to the general supply at the side of the board (they will be available again in subsequent turns). Any stacks of steam pump discs that have not been taken by the end of the current turn are also returned to the general supply.

It takes one Time Point to take and use one stack of steam pump discs. There is no financial cost.

ACTION SELL PASTIES

Cornwall's most famous delicacy is the pasty. It was the miners' lunch, a mixture of meat and vegetables surrounded in a pastry case with a thick crust along one side to allow the miner to hold it in his dirty hands (this part of the crust was not normally eaten).

In reality pasties were home made, by the miners' wives. However, in this game you can Sell Pasties to raise £1. It is usually an action to be taken when you have spent too much money and need to get a little back to perform another action. When you take this action you add £1 to your Money total.

The Sell Pasties action takes one Time Point.

ACTION PASS

If you choose to pass you remove your player token from the Time Track and move it to the left-most empty space in the Order of Play box. You cannot perform any more actions this turn, nor can you take part in any auctions. If you are on the '10' space of the Time Track then you must take the Pass action.

If all but one of the players have passed the remaining player may perform just one more action (if he has the Time Points remaining), before being forced to select the Pass action.

The Pass action uses no Time Points.

► Phase Four - Sell Ore

The Action phase will end when all players have passed. Players must now sell all of the tin and copper cubes they have mined during the turn.

The Ore Price table tells you how much money you receive for each tin and copper cube you sell. You need to calculate how much money you will receive in all and add this to your total on the Money Track. You cannot retain tin or copper cubes to sell in later turns – you must sell everything you have. All of the sold cubes are returned to the general supply.

EXAMPLE: You have three copper and two tin cubes in front of you. The price of copper is £8 per cube, so you will earn £24 from the sale of your three copper cubes. The price of tin is £5 per cube, so you will earn £10 for all of your tin. Accordingly, your cubes are returned to the general supply and you add £34 to your money total.

£4	£5	£6	£7
0 → 4	5 → 6	7 → 8	9 → 11
£2	£4	£8	£10
+1			-1

► Phase Five - External Investments

Once you have earned your money from selling ore you now have the opportunity to invest it in ventures outside of Cornwall. A lot of Cornish mine owners invested in Welsh copper smelting in an attempt to control the entire industry.

The order in which players invest is determined by the Order of Play box. When it is your turn to invest, you can make a single investment or pass, and then play passes to the next player on the track. After every player has had one opportunity to invest, there is another round of investing, again in turn-track order. Any player who has not passed has another opportunity to invest. This process is repeated until every player has passed. Each player has just twelve investment cubes to use through the course of the game.

The Investment Display is made up of four columns, one for each turn of the game. You can only place an investment cube in a space in the column that matches the present turn, e.g. in the third turn you can only place cubes in the third column. Each box can contain no more than two investment cubes. Those cubes could belong to the same player or two different players.

To place a cube in a box you must pay the amount shown on the left of the row. You adjust your Money total accordingly. The box shows how many victory points you will score at the end of the game. Note that the value of investments declines

over the course of the game. Also note that External Investments is the ONLY way to score victory points in the game!

You need to be careful that you do not invest too much of your money as you will need some funds to bid in auctions and mine ore in the following turn. Obviously in the final turn you invest as much as possible.



EXAMPLE: It is the second turn and the green player is taking his second opportunity to invest (he already has a cube in the 10VPs box). He has £24 left and must decide whether to pay £15 to invest in the 15VPs box, keep some extra money back and invest in the 5VPs for £5, or pass and retain all £24. He cannot invest in the 10VPs or 20VPs boxes as these already contain two investment cubes.

► Phase Six - Prospecting

The game starts with a certain number of areas already 'seeded' with tin and copper cubes. There are eight clear areas that do not start with any cubes. In this phase two of these areas will have cubes added to them. The first player in the Order of Play box must choose one clear area (one with neither ore cubes nor a mine). He rolls the three special dice and places cubes in the area according to the roll.

The player who is second in the Order of Play box must now choose a different clear area to roll the dice for. If all areas on the board already contain cubes or mines then no Prospecting action is taken.



EXAMPLE: You are the first player in the Order of Play box and choose the above area for prospecting. You roll the dice shown above and so place one tin, three copper and two water cubes in the area.

If there is an adit connected to the area being rolled for then place one extra tin and one extra copper cube, and one less water cube than the dice indicate for each connected adit. If there is a train in the area place two fewer water cubes and one fewer water cube for each adjacent train. If there is a port in the area place one less water cube.

► Phase Seven - End of Turn

The game will end at the conclusion of the fourth turn. There is no Turn Track on the board – players can see which turn they are in from the cubes on the Investment Display. If it is not the fourth turn then start a new turn.

WINNING THE GAME

The game ends after four turns. Players now count up their victory points for the cubes on the Investment Display. You do not score anything for money, mines or other developments on the board. The player with the highest total of victory points wins the game.

In the case of a tie, the tied player with the most money left is the winner. If there is still a tie then count tin and copper cubes controlled by the tied players (i.e. cubes remaining on the board in areas that they have mines in). The player with the most cubes remaining is the winner. If there is still a tie then the tied player left-most in the order of play wins.

EXAMPLE: The red player finishes with a total of 85 victory points, purple has 101 victory points, yellow has 77 victory points, and green has 74 victory points. Purple is the winner!



DESIGNER NOTES

This game only exists because my partner's parents live down the road from the old Cambourne School of Mines in Cornwall. If you have ever been to Cornwall it's hard to ignore the fact that mining was once the principle activity in the county (replaced today by clotted cream and traffic jams). After visiting a couple of old mines it occurred to me to do a game on the subject.

At about the same time I had some ideas whizzing about my head for a new line of games that would only use wooden pieces. 'Tinnners' Trail' is the result of the combination of these ideas.

The approach I took with this game is the same one that will be taken with every game in the Treefrog Line. First I research as much as I can about the subject until I get a 'picture' of what was going on. Then I sit down to design a game that includes as much 'history' as possible. As far as possible rules are written to reflect the reality of the theme. In the case of Tinnners' Trail the big reality is the issue of pumping water out of a deep mine. Not the sexiest problem in the world but a challenge that led to massive improvements in steam engine technology. The game is really built around trying to get rid of water cubes. This allowed me to tack on the other important developments, ports, steam trains, and adits. It is unlikely that anybody outside of Cornwall has heard of the adit. However, large parts of the county are honeycombed with these underground drainage tunnels, with the odd house falling into one.

The investment mechanism is inspired by Wolfgang Kramer's Princes of Florence, the question being how many victory points do you want to buy. The other mechanism I've 'nicked' is the time system, which I took from Peter Prinz's Jenseits von Theben. It was the perfect solution to the problem of limiting the number of actions a player can carry out. The rest of the game is pretty much mine.

In the attempt to follow 'reality' you can end up with rules that could be viewed as 'sub-optimal'. The best example of

this in Tinnners' Trail is the Ore Price mechanism. It's random, which will upset some players. It would be perfectly possible to reduce the degree of randomness. However, in reality the price of copper and tin was random. The discovery of a massive lode of copper in a hill in Anglesey that could be drift mined caused the price to tumble, resulting in the closure of hundreds of Cornish mines. However, once the hill had been mined out the price rose again and mines opened up again. That is a random event.

A game is an abstraction of reality, even with the most detailed set of rules. This game is no exception and there is lots of 'history' that I had to leave out. The best examples would be the use of dynamite, the invention of the Man engine, and the massive unemployment that resulted from mine closures.

Returning to the game itself I cannot give too many tips on playing it as I'm just not that good a games player. The game is not actually that complicated. When the price of copper and tin is high you want to mine as much as possible (as in real life). When the prices are low you are best to concentrate on developments to reduce the cost of mining the ore and wait until prices improve (hopefully). Investing early is good as you get the best return on victory points. What you must not do is spend too much on investment as you need capital to bid on new mines and to pay to mine ore. I would advise establishing at least two mines in the first turn. Coastal areas are the best as they can have ports built in them. Owning mines in adjacent areas is always good as it means you can place an adit between them. Passing early is good as it puts you in pole position for the following turn. Try to plan out what actions you really need to perform so that you can pass as soon as possible. Only take the pasty action if you really need the money. The hardest part of the game is deciding how much you want to pay for a mine. And that is about it.

Hopefully you will enjoy the first game in the Treefrog Line. There will be more to come!

Martin Wallace

CREDITS

Game designed by Martin Wallace.

Graphics & Illustrations by Andreas Resch.

Thanks to Julia Bryan, Richard Dewsbery, Jerry Elsmore, JKLM, David Norman and Peggy Hollis (for the title).

Playtested by usual crowd, including Simon Bracegirdle, Andy Ogden, Geoff Brown, Don Oddy, Martin Burroughs, Paul Oakes & friends, Lance Robertson, Chris Payne, Paul Moulden, Chris Dearlove, Phil Honeybone, Richard Dewsbery, lots of people at Baycon, Stabcon, Midcon and SORcon.

You can check out the latest JKLM games at: www.jklmgames.com

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PLAY AID

TURN SEQUENCE

1. Determine ore prices

Roll dice to determine prices of tin and copper

2. Available developments

Place development pieces in Available development box

3. Player actions

Players perform actions until they all pass

4. Sell ore

Players must sell all of their copper and tin cubes

5. External investments

Players spend money to place investment cubes on the Investment Display

6. Prospect

First two players choose a clear area each and roll to see which cubes are placed there

7. End of turn

Game ends after four turn. The winner is the player with the most victory points

EASY TO FORGET RULES

- You can select a clear area to build a mine in but you only roll to see what cubes are there after the auction has been completed.
- Only one development piece of each type per area (or border in the case of an adit).
- An adit affects both areas it is connected to.
- A train will remove two water cubes from the area it's placed in and one from each adjacent area. It only increases the Mining Capacity for the area it is in.
- Ports must be built in an area that borders the sea.
- Always add one water cube to an area after mining.
- When all but one player have passed that player has one more action.
- You must sell all of your ore during the Sell Ore phase.
- Only two investment cubes can be placed in a box.
- When you prospect a clear area the dice roll will be modified by any developments in the area.

NON-DEVELOPMENT ACTIONS

ACTION	TIME POINTS
Build mine <i>Select area and hold auction</i>	2
Mine ore <i>Basic mining Capacity of two</i>	1
Sell Pasties <i>Earn £1</i>	1
Pass	0

DEVELOPMENT ACTIONS

	TIME POINTS	MINING CAPACITY			
	1	+1			
	2	+1			-1
	3		+1 +1	+1 +1	-1 -1
	2	+1			-2 -1
Improve Steam Pumps	1				-1