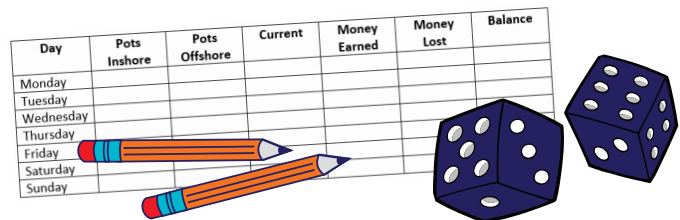


LOBSTER POTS

Everything You Need to Play

MATERIALS

- Two standard dice for Club Leader
- Handout (or blank paper) for each student
- Writing utensil for each student
- Slide deck with instructions



RULES

The game of Lobster Pots incorporates the topics of probability, profit and loss, arithmetic and risk. Students will play the role of lobster business owners who are trying to make as much money in one week as possible for their lobster businesses. Use the included slide deck to introduce your students to the rules of the game.

- Give each student a copy of the handout with the table below. Alternatively, have students create this table for themselves using their blank paper and writing utensils:

Day	Pots Inshore	Pots Offshore	Current	Money Earned	Money Lost	Balance
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

- Each player begins with 6 lobster pots and an amount of money specified by the Club Leader/game facilitator. Anything between \$20 and \$100 works well. We suggest \$50 for your first try.
- At the start of each day in the table, students place their pots either inshore or offshore. Pots do not all need to be in the same place. Before placing their pots, however, the Club Leader will roll a die to give students a weather forecast for the day. If the die lands on 1, 2 or 3, the weather is predicted to be good for that day. If the die lands on 4, 5 or 6, the weather is predicted to be bad. (Note: The Club Leader can feel free to get creative in how they explain the weather prediction. For example, if the die lands on 3, the Club Leader could say, "There may be some clouds rolling in in the afternoon, but in general, it should be a good day." This, however, is not a requirement of the game rules.)

- Once everyone has placed their pots, another die should be rolled. This die represents the actual weather for the day, expressed by the current of the ocean. If the number on the die is *less than* the weather prediction roll from earlier, then there is bad weather and therefore a current, so 'yes' should be written in the Current column. (For example, if the weather prediction roll was a 4, rolling a 1, 2 or 3 on the actual weather roll would result in bad weather.) If the number on the die is *equal to or greater than* the weather prediction roll, then the weather is good and there is no current, so 'no' should be written in the Current column.
- The money students lose and earn depends on whether there is a current or not and where their pots were placed. This information is below:

No Current	Inshore	Offshore
Money Earned (per pot)	\$2	\$6
Money Lost (per pot)	\$0	\$0

Current	Inshore	Offshore
Money Earned (per pot)	\$4	\$0
Money Lost (per pot)	\$0	-\$10

When there is a current and your pots are offshore, the pots are destroyed. A player must always have 6 pots, so you have to pay to replace any destroyed. Each pot costs \$10, which is why you lose \$10 per pot with an offshore current. If needed, a player should go into debt to replace a lost pot(s).

- Once students have figured out how much money they have earned and lost, they should add this to their tables for the day and fill in any remaining information for that day. A sample table is below, assuming a starting game balance of \$50:

Day	Pots Inshore	Pots Offshore	Current	Money Earned	Money Lost	Balance
Monday	4	2	Yes	\$16	\$20	\$46

- Some days are special:

- Tuesdays** are **lottery days**. Each student must write down a number between 2 and 12 on a piece of paper. Then, the Club Leader rolls two dice. The sum of the numbers on the dice is the winning number, and the winner(s) gets \$100. (This is just another way to practice with probability – students should be able to work out the most likely sums to come up and choose one of those.)
- On **Thursdays**, students must **pay taxes**. Taxes are calculated as a percentage of the profit students have made so far in the game. For example, if a student started the game with \$50 and now has \$90, they must pay taxes on their \$40 of profit. If a student started the game with \$50 and now has \$30, they have earned no profit, and therefore, will not need to pay taxes. We recommend using a tax percentage between 3% and 12%.
- On **Saturdays**, students can **gain interest** on their money as if it were in a bank. If students have a negative balance on a Saturday, the Club Leader can decide if they should gain no interest at all or if their debt should increase. Good percentages to use for interest in this game are anything between 5% and 30%.

- The lobster business with the most money at the end of the day on Sunday is the winner.

DIFFERENTIATION, SCALING & EXTENSIONS

Change the Rules

- 🎯 If it's your first time playing (or simply if you wish to do so!), do not make any days special/different (Tuesdays, Thursdays, Saturdays). Alternatively, make up your own special days.
- 🎯 Eliminate the weather forecast die role and only use the actual weather die role for the current. In this case, you can decide which numbers rolled would indicate good or bad weather. Perhaps 1, 2 and 3 represent good weather, while 4, 5 and 6 represent bad weather. Alternatively, you could make 1-5 represent good weather, and only have a roll of 6 result in bad weather. You could also change which numbers result in good or bad weather each day throughout the game – it's entirely up to you!
- 🎯 Give students the option to purchase additional pots (not just when they need replacing) throughout the game. If you do offer this option, the following columns should be added/adjustments should be made to students' score sheets to account for the purchasing of pots:

Day	Starting # of Pots	# of Pots Purchased	Pots Inshore	Pots Offshore	Current	Money Earned	Money Lost (including pots purchased)	Balance
Mon.								
Tues.								
Wed.								
Thurs.								
Fri.								
Sat.								
Sun.								

Level Up

- 🎯 Play a more advanced version of Lobster Pots, explained by TesWorld at: <https://www.youtube.com/watch?v=rBE1n2vZS6M>
- 🎯 Play the game in Excel! Give students a chance to practice determining rules and programming formulas while setting up their Lobster Pots tables in Excel. For example, students could write formulas for the Money Earned, Money Lost and Balance columns based on the values entered in the Pots Inshore, Pots Offshore and Current columns.

MATHCOUNTS did not create Lobster Pots, but we have not been able to determine the origins of the game in order to request sharing permission or give credit. However, we love the game and wanted to share it with you! If you have any information regarding the origins of Lobster Pots, please let us know at info@mathcounts.org.

LOBSTER POTS

Day	Pots Inshore	Pots Offshore	Current	Money Earned	Money Lost	Balance
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

Earnings & Loss Per Pot

No Current	Inshore	Offshore
Money Earned (per pot)	\$2	\$6
Money Lost (per pot)	\$0	\$0

Current	Inshore	Offshore
Money Earned (per pot)	\$4	\$0
Money Lost (per pot)	\$0	-\$10