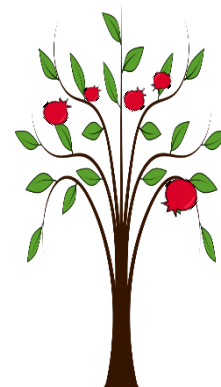




TU B'SHEVAT BREAKOUT BOX



What is Breakout.EDU?

You may have heard of Escape Rooms—actual (as opposed to virtual) rooms where a group, usually ranging from 6-12 participants, work together to solve a series of puzzles in order to “break out” in an allotted time, often an hour. If successful, participants pose with signs that say, “We did it!” etc.; if they fail, they pose with negative but good-humored signs. Breakout EDU brings the concept of breakout rooms into the classroom. Participants are given a series of puzzles, with each answer opening a different lock on a box or bag. The puzzles, taken together, are known as a “breakout.” Instead of gaining their freedom, if successful, students open all of the locks on the box and claim the prize inside.

In public school classrooms, breakouts are frequently used for review. Subject matter is only limited by what is taught in that setting. You can find breakouts created by teachers in many categories at [Breakout Edu](#). In the Jewish supplemental classroom, breakouts are often used to teach new material as opposed to being a vehicle for review.

There is no set number of puzzles in a breakout; the amount might be determined by the number of locks available, the amount of time allotted, or the age and/or ability of the participants. The genre of puzzles is often varied—as is the case in this breakout—to capitalize on different skills and abilities of participants. A student who excels in math reasoning, for instance, and one who is skilled in remembering details will both contribute to their team’s success.

Options for Using this Breakout

Puzzles work best when 4-6 participants work together to solve them.

In the best case, you will have one complete set of puzzles and one box for every 4-6 students. In this scenario, students can solve puzzles collaboratively, or split up the puzzles and work in smaller groups. If this isn’t the case, you have a few options:

- A) If you have enough puzzles for each group to get a full set, but only one box with locks, have students record their answers on the answer sheet (included) and try to open the locks as a group to end the program.
- B) If you don't have enough puzzles:
 - Give each group one puzzle and have the whole class work to complete the puzzles as a team, each group completing one puzzle and unlocking one lock.
 - Give each group one puzzle but, instead of opening the corresponding lock, have them write down their answer. Rotate puzzles. When each team has completed each puzzle, see if their answers open the lock.

The students know that they’re solving puzzles to get a prize. You know that in the process of solving puzzles, they’re learning about Tu B'Shevat. The more puzzles a team works through, the more knowledge they are able to unlock.

A few notes on running this program:

- When splitting students into groups, be mindful of their strengths. The groups will be more successful if each one includes an organizer and a thorough reader.
- Consider assigning a group leader for each group or assigning this role to a teenage *madrich/a* (teaching assistant).
- This program requires the teacher or facilitator to walk among groups checking on progress and helping students where necessary.



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- We have included a number of hint cards. If a group is stumped, they can hand the teacher or classroom leader one of these cards to get a hint. The hints are at your discretion based on what they need to succeed. Remember, the goal is two-fold: that they unlock the box and that they learn.

Tu B'Shevat Box – Description

There are four puzzles, which will be discussed in further detail below, and an introductory video in this breakout. The topics covered include: The Talmudic tale of *Honi HaM'agel*, the biblical practice of Tu B'Shevat—focusing on tree planting and how many years one has to wait after a tree is planted to eat the fruit, the benefits derived from trees, and fruit trees that grow in Israel.

You will need to gather or purchase:

- A box or bag (large makeup bags work) that can hold a hasp
- A hasp and four locks: key, four-digit, five-letter, three-digit
- A small mesh bag as described above, with ties that one can string a lock through
- An invisible ink pen with a built-in UV light, or an invisible ink pen and a UV flashlight
- Dry erase markers and an eraser (if you plan to laminate pieces and use multiple times)
- Legos: 4 - 1x1 bricks, reddish brown, 4 - 2x2 bricks, reddish brown, 5 - 1x3x3 brick with bow, reddish brown, 8 - limb element, dark green
- A permanent marker that will show up on brown LEGOs; we suggest a metallic Sharpie
- Clear nail polish
- A prize or prizes to put inside the box. Seed paper is available at a reasonable price on Amazon.com
- A laptop and screen, or a tablet for playing the introductory video
- Pens and paper
- A timer if you choose to limit the amount of time to complete the puzzles

Prepare

- Download PRINTABLES from JTeach.org: hint cards, cards for students to record their lock codes, tree cookie questions and congratulatory signs
- Set all of the locks
- Follow preparation instructions specific to each puzzle, found in the notes below

Introduction to the Tu B'Shevat Challenge

- Link to *My Simple Slideshow* for video at:
<https://videos.mysimpleshow.com/MGEEIOU8Mq>

How Old is That Tree (4-digit lock)

- *How Old is That Tree* book and dry erase marker
- Tree cookie with puzzle question
- *Things We Get from Trees* poster

Fruit Trees in Israel (key lock)

- gameboard and game cards
- tour guide sheet
- UV flashlight



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Honi the Circle Maker (3-digit lock and 5-letter lock)

- visual puzzle card
- mesh bag filled with LEGOs for making the tree

Using the Breakout Puzzles

This section includes instructions on how to set up the challenge, detailed information on each puzzle, and thoughts about debriefing once the students are finished with the puzzles.

Please note that some of the puzzles require specific materials and advance preparation. If you don't have the time to prepare, or access to materials, consider using parts of the breakout. The booklet used for the "How Old is That Tree Puzzle" can be used as a stand-alone teaching tool, for instance. Or students can match quotes to trees using the materials for the "Trees of Israel" puzzle without finding the quote if you don't have access to a UV flashlight.

Setting the stage – Tu B'Shevat Video

Gather together all players to watch the introductory challenge video at:

<https://videos.mysimpleshow.com/MGEEIOU8Mq>

This brief video introduces the history and some of the customs of Tu B'Shevat and lets students know that they have an important mission to complete—finding the seeds needed to celebrate.

How Old is That Tree Puzzle: (4-digit lock, solution: 2022)

The main component of the tree ring puzzle is an accordion booklet which teaches that, in Judaism, all trees planted during a year (from one Tu B'Shevat to the next Tu B'Shevat) are considered to have the same birthday, and uses biblical verses (Leviticus 19:23-25) to inform students about various restrictions and obligations based on the age of a tree.

Students are asked to repeat this information by filling in some blank spots (using the dry-erase markers) left in the book. They are also taught how to count the age of a tree using its rings and asked to compile a list of why they are thankful for trees. The poster, *Things We Get From Trees*, may be hung in the room as an aide for completing this list. Once students complete the list they show it to the facilitator, who hands them a "tree cookie" with the clue to open the number lock. (A tree cookie is a small cross-section of a tree in which you can see the tree's rings.)



The combination which opens the lock is found by going back to the information learned from the biblical verse. The students are asked to calculate, if they planted a tree this Tu B'Shevat when they would be able to eat the fruit? The question is asked more simply: *If one plants a tree the day after TuB'Shevat in 2018, what year will it be in four-and-a-half years (in the fifth year) when you can eat the fruit?* The fruit can be eaten at any time during the fifth year, and beyond. We chose a particular time during the fifth year, to make it easier for the students to calculate. The answer is in 2022.

Prepare

Print and assemble the booklet. Print and hang the poster. Print and cut out the image of a tree cookie with the question superimposed for distribution when the students show you their completed list.

Fruit Trees of Israel Puzzle (key lock, solution: make the desert bloom)

The three components of the Fruit Trees of Israel puzzle are a page of notes made to look as though it fell out of a tour guide's notebook, a poster with pictures of nine fruit trees, and nine cards, each



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containing a quote about a tree. Participants will read the tour guide notes as well as a small card attached letting them know that the notes were damaged and are incomplete.

In order to complete the notes, students will have to match the right quote to the right tree. Once they've done this, they can use the invisible ink pen with a built-in UV light on the tip to scan the quotes for letters which will glow when the light is passed over them. If the cards are in the correct order, these letters spell out "make the desert bloom." Only the TaNakh quotes contain highlighted letters. When they've figured out the answer, they should report it to the teacher or classroom leader who will give them the key lock.



Prepare

Print *Tour Guide Notes* and rip the edges, if you choose. Attach the card with the directions. Print the "Trees of Israel" gameboard. Print, cut, and paperclip the associated quotes.

Highlight certain letters in the biblical quotes using the invisible ink pen, as follows:

Exodus 28:33 -MA in the word "make"

Psalms 92:13 - KE in the word "like"

Deuteronomy 24:20 -THE

Micah 4:4 - DE in the word "under," S in the word "his," ERT in the words "bother them."

Genesis 43:11 -BL in the word "balm"

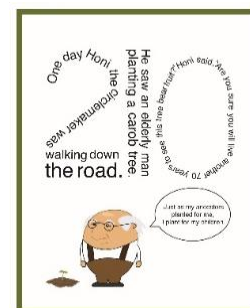
Leviticus 23:40 - OO in "goodly" and M in "palm"

Honi the Circle Maker Puzzle (3-digit lock, solution: 210)

This puzzle consists of a card with the story of Honi the Circle Maker on it. At the bottom of the card is a picture of an elderly man telling Honi why he is planting the tree. The story itself is presented in the shape of the number 210, which is the gematria (numerical value) of the Hebrew word for trees, עֵצִים. In gematria, each Hebrew letter corresponds to a number (e.g. 1=א 2=ב).

Thus, ע=70, צ=40, י=10, מ=90; and 70 + 40 + 10 + 90 = 210.

Students solve the puzzle by seeing the numbers that the words form. This will lead them to the LEGO tree puzzle.



Prepare

Print the Honi picture.

LEGO Tree Puzzle (letter lock, solution: WATER)

This puzzle is inside the mesh bag. The bag should be locked up with the 3-digit lock. Students will need to solve the Honi the Circle Maker puzzle in order to access the LEGOs.

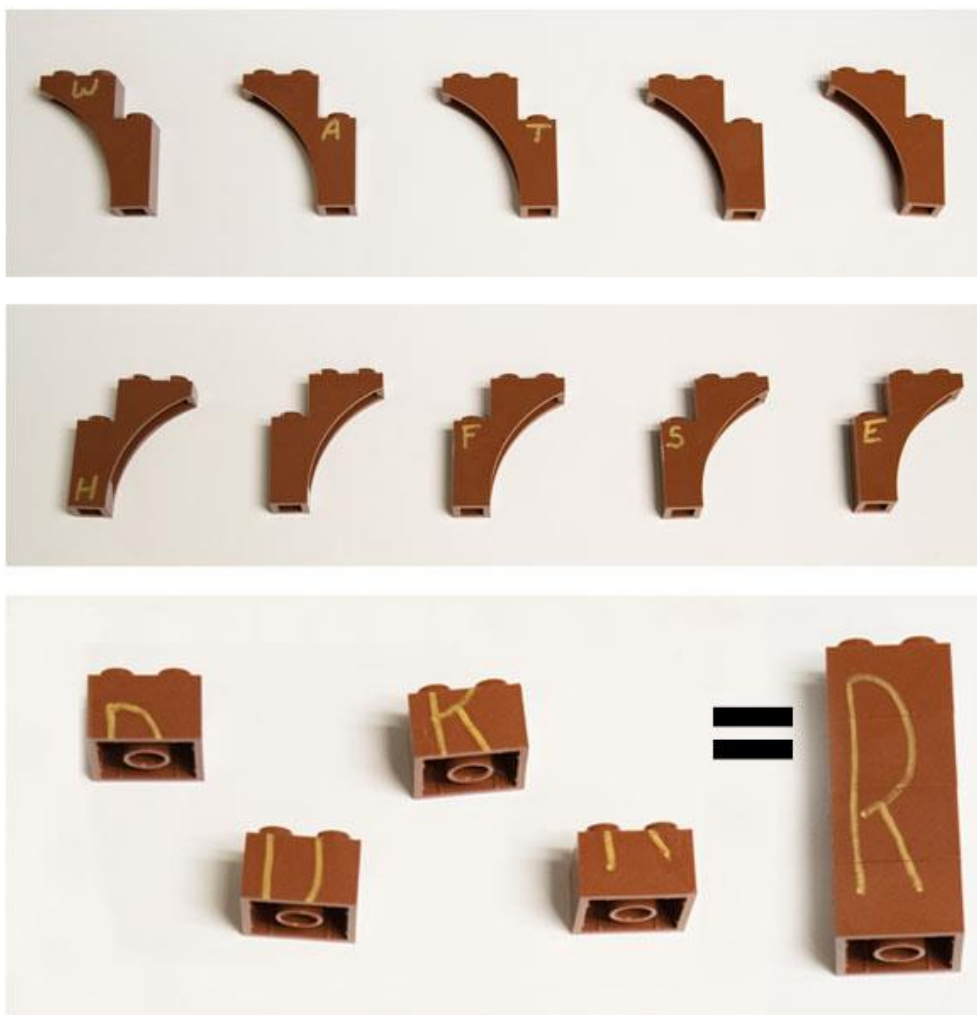
Students solve the LEGO puzzle by building a tree and deciphering the word that is written on the LEGOs. Note that, when the tree is built according to the picture that is provided, not all of the letters written on the Legos will be showing. The letters that are left can be unscrambled to make the word "water," which will open the letter lock.



Prepare

Gather the LEGO pieces, your marker, and clear nail polish. Write the letters on LEGO bricks as indicated on the LEGO Tree Guide. The first set of letters will be written on the pieces that have a curve or bow at the top. After writing on one side, cover with clear nail polish and let dry before writing on the opposite side. The letter "r" should be written across four assembled two-by-two LEGO bricks as shown in the picture. Place the LEGO pieces into the mesh bag, securing it with the three-digit lock.

LEGO TREE GUIDE



When the Box has been Opened

Hand out the leaf-shaped papers, explaining that they contain seeds and can be planted, just as they are, at home. You can purchase seed paper through Amazon or provide a different prize. If you choose, have students pose with the box and some of its contents, along with the *Mazel Tov* sign.



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In Debriefing the Activity, You Might Ask:

- Which activity did you most enjoy?
- Which activity did you find most challenging?
- What did you learn?
- What are the most important things trees do or give to us?

Review, Adding Information as You Choose:

- Tu B'Shevat is on the fifteenth of the Hebrew month of Shevat. It's often called the Birthday of the Trees, but is really used for counting the age of a tree so that the owner knows when to eat the fruit and when to pay taxes on the produce.
- Today, people celebrate Tu B'Shevat by planting trees, holding Tu B'Shevat *seders*, and eating fruits and nuts which grow in the land of Israel.
- The fruit can be eaten in the fifth year (and beyond). The fifth year is any time after the tree has turned four but has not yet turned five. You might explain this concept using the students' ages and birthdays, letting them know, for instance, that if they are ten years old, they are in their 11th year.
- Although trees have always grown in the land of Israel, immigrants and visitors in the 20th century, with the help of the Jewish National Fund (JNF)—*Karen Kayemet L'Yisrael* (KKL) planted millions of trees, making the land “greener” than had previously been the case.
- Honi the Circle Maker was a Talmudic sage and miracle worker who was known to be so pious that he could make the rains come in a time of drought (Mishnah Ta'anit 3:8). On Tu B'Shevat another narrative of Honi's life is told (Tractate Ta'anit 23a): Honi was walking down the road when he saw an elderly man planting a carob tree, which the man would likely not live to see bear fruit. Honi questioned the stranger about the purpose of planting a carob tree whose fruit he would never see. The man pointed out that there were already many carob trees in the world when he was born. “Just as my ancestors planted for me,” he told Honi, “I am planting for my children.” Honi then walked on and fell into a deep and mysterious sleep. When he woke, he found that so many years had passed that he had lived long enough to see the results of planting the tree. Thus, Honi learned the value of planting trees and looking out for future generations.

How did it go? We want to know!

Please take a moment to give us feedback.

- What worked well?
- How can we do better next time?

Contact us at: jteachnotifications@gmail.com

Thanks!