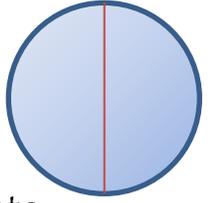




## Some Circular Activities for Pi Day



Pi Day falls on March 14 (3.14) each year. The day is a celebration of the number  $\pi$ , the number by which the diameter of all circles is multiplied in order to arrive at each circle's circumference. While Pi Day became a day to be celebrated only recently, the importance of the number itself has been known for millennia and even appears (sort of) in the Bible (see below). Celebrate this circular day with one or more of these activities.

**Mmmmm... Pi(e)** – Eat pies made with fruits from Israel. These could include fig, date, and/or pomegranate pie. Another option: Purim is coming! Make a pie out of ingredients that start with the letters of Adar. Apples, dates, and rhubarb, oh my! Remember to have options for all food sensitivities.

**Rain, Rain Come Today** – Honi Hamagel (Honi the Circlemaker) was known as a miracle worker who brought rain during a time of drought by standing in a circle that he drew in the ground and then challenging God to send rain. Tell one of the stories about Honi and his efforts to bring rain for the people. Then have students make circles out of materials of their choosing and tell what their circles bring to the world.



**Dance Party!** – Learn some circle dances and celebrate the day with a rousing *hora*.

**Gematria Time** – The number 314 can be written with the Hebrew letters ,ט'-י'-ש which when rearranged make י'שׁ (Shaddai), one of God's names. Ask students where they might find God in a circle. You might also ask students to calculate the value of their own names in *gematria*. What other words can they think of that have the same value as their own names?

**Circle Your Building** – Take a *tiyul* (tour) around your building and look for circles. What ritual objects are in the shape of a circle or have a circle in them? What meaning, if any, can you find in the circles around your building?

**It's All Relative** – Albert Einstein, the great physicist, was born on 3/14, 1879. Along with being a scientist, he was also a civil rights activist, Zionist, and avid musician. Einstein was among the first members of the Board of Governors of Hebrew University and was offered the presidency of Israel after the death of Chaim Weizmann. (Einstein declined.) Take the anniversary of Einstein's birth along with the celebration of Pi as an opportunity to explore Einstein's contributions to the world of science, philosophy, and Israel.



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**Test the Temple** – The *Tanakh* (Bible) states that the “molten sea” in the First *Beit Hamikdash* (Holy Temple) was 10 *amot* (cubits) in diameter and 30 *amot* around (*Melachim* 1 7:23). Take a piece of string 10 inches long and another 30 inches long. Can you make a circle with the 30-inch string around the 10-inch string? What would you need to do to make it work? [Note to Teacher: The string would need to be approximately 31.4 inches long to make a complete circle.]

**Stop Being So Rational!** – The Rambam was one of the first people to comment on the irrationality of Pi. (An irrational number is one that cannot be stated as a fraction and, therefore, extends infinitely with no repeating patterns.) In his commentary on the Mishnah (*Eruvin* 1:5), the Rambam states that Pi can never be known fully and that the closest approximation of the number is 22/7 (see text below). Celebrate Pi’s irrationality by running around in circles and gobbling like a turkey. You also might choose to tell the [story of the Turkey Prince](#) and discuss how we can find rationality through the irrational.



Maimonides Commentary on <i>Mishnah Eruvin</i> 1:5	רמב"ם על המשנה ערובין 1:5
...You should know that the ratio of the diameter of a circle to its circumference cannot be known, and it is impossible to speak about it in truth. And this lack of comprehension is not from us as the ones called Gahalia would say. Rather it is the nature of this thing that it is not known and it is not in its reality to be known. But it is known in approximation and already the group of mathematics scholars have composed essays approximating the ratio of the diameter of the circle to its circumference; and the closest approximation on which [these scholars] rely is 3 1/7...	היתה של קש ושל קנים רואין אותה כו' - יש לך לדעת כי יחוס אלכסון העגולה אל המסבב אותה בלי ידוע ואי אפשר לדבר בו לעולם באמת וחסרון זו ההשגה אינה מאתנו כמחשבת הכת הנקראת גהלי"ה אבל הוא בטבעי זה הדבר בלי ידוע ואין במציאותו שיושג אבל ידוע זה בקרוב וכבר חברו חכמי התשבורת לזה חבורים לידע יחוס האלכסון אל המסבב בקרוב ודרך המופת בזה הקרוב אשר עליו סומכין חכמי החכמות הלמודיות... הוא יחוס האחד לשלשה ושביעית