

Is it a star or a planet – how can you tell?

Have you ever seen a bright star and wondered if that “star” might be a planet?

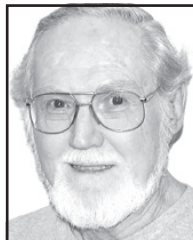
Planets and stars are different types of objects, yet they look alike to the naked eye. Indeed, in the word planet derives from the Greek word “planēs” which means wanderer, thus planets were considered wandering stars by our ancestors.

So, without using a telescope, how can one tell which is which? One way, of course, is to watch any suspicious object night after night to see if it moves, or wanders, relative to the surrounding stars. But that can take many nights, as planets move slowly and the more distant ones have to be watched for weeks, especially when there are no nearby stars.

For casual observers, there’s no foolproof way to pick out the planets from the myriad of stars, but some pointers can help. First, there are only five naked-eye planets – Mercury, Venus, Mars, Jupiter and Saturn – and they are usually brighter than the vast majority of naked-eye stars. (Technically, Uranus can be seen naked-eye, but it’s at the limit of visibility, and seeing it requires good eyes and very dark skies.)

Start by noticing the brightness of the object in question. Venus and Jupiter always outshine all the stars, and the other three are usually brighter than all but the brightest stars. So brightness is the first clue.

Second, perhaps you’ve heard that “stars twinkle and planets don’t” – and this tends to be true,



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although the difference can be subtle and varying. Twinkling – called scintillation – is caused by turbulence in Earth’s atmosphere, so that greater air instability produces more twinkling while steadier air makes for less. So, when the stars are twinkling noticeably, look for any

brighter objects that aren’t.

Third – and this is quite helpful – look in the right part of the sky. Planets orbit the Sun on nearly the same plane, so they all closely follow the ecliptic – the Sun’s path across our sky. And since the Moon orbits the Earth on nearly this same plane, it too travels close to the ecliptic.

Like the Sun and Moon, the planets rise in the east and set in the west, owing to the Earth’s west-to-east rotation on its axis. Facing south with your arms outstretched slightly more than 180 degrees, any visible planets will be in front of your arms – never behind you or even straight overhead. All that are above the horizon will be somewhere along the great ecliptic arc beginning in the east (your left), rising and tilting somewhat to the south and ending in the west (your right).

There are two additional things to know about the ecliptic. The season and time of night affect the ecliptic’s exact rising and setting points, making them sometimes a little left or right of due east and west. And, the amount of southerly tilt varies so that sometimes the ecliptic is tilted more than half way down toward the southern horizon while at other

times it reaches nearly straight up. Still, knowing the approximate path is useful in identifying planets.

The inner planets, Venus and Mercury, orbit nearer the Sun inside Earth’s orbit. Thus, when they are not hidden in the Sun’s glare, they are seen only in the

evening soon after sunset low in the west or in the morning soon before sunrise low in the east – never real high in the sky and never deep into the night. When visible, Mercury, being so near the Sun, is rarely seen after twilight.

The outer planets, Mars, Jupiter and Saturn, when not passing behind the Sun, might rise or set – and thus may be seen – any time of the night. When they are on the opposite side of Earth from the Sun – a position called opposition – we are at our nearest to them, making them appear at their brightest and largest.

Currently there are great opportunities for identifying four planets among the stars as Saturn and Mars are visible in the evening while Venus and Jupiter are up in the morning.

Soon after dark Saturn and Mars are less than half way up in the southwest. Saturn is less than 5 degrees (one-half fist-width held at arm’s length) to the upper right of the star Spica. Almost equally bright, Spica is twinkly white while Saturn shows a steady

creamy tint. About 20 degrees (two fist-widths) to their lower right, Mars has a reddish tint with no notably bright stars nearby. Mars is gradually approaching Saturn and Spica and will pass between them in mid-August.

In the morning before dawn, Venus and Jupiter are very low, rising in the east. “Morning star” Venus vastly outshines all the real stars as does Jupiter, although the king of the planets can’t hold

a candle to his queen. Venus is near the reddish star Aldebaran, passing within two moonwidths July 8 to 10, but first-magnitude Aldebaran, 14th brightest of all the stars, pales in comparison to Venus. Jupiter, five degrees above, is nearly half way between Venus and the lovely Pleiades star cluster. Venus and Jupiter are drifting further apart each morning.

Here’s hoping these pointers help you learn to pick out our brighter solar system neighbors from among the seemingly countless background stars.

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Young stockmen look at beef marketing

The second installment of the 2012 Kansas Livestock Association Young Stockmen’s Academy was held in the Kansas City area June 25 to 27. The group, which includes Shea Baird of Levant, Calder Keller of Oakley and Wyatt Rundel of Wichita, spent three days learning about the agribusiness and retail beef industries.

Merck Animal Health was the host for the class of 20 at its office in DeSoto. Vista from Merck is the sponsor of the program. Jeff Baxter, senior marketing manager for the company, discussed challenges facing the livestock industry today and in the future, including pro-

viding substantially more food to feed a population that is expected to double by 2050.

The group toured Sysco Food Services, Bichelmeyer Meats and Whole Foods Market to gain a better understanding of the link between the processing plant and the consumer’s plate. Sysco distributes high-end beef cuts to restaurants across the U.S. Bichelmeyer is a family-owned business consisting of a small processing facility and butcher shop. Whole Foods focuses on natural and organic beef.

In addition, the class had the chance to visit with consumers about the beef they produce on their farms and ranches while distributing

samples at grocery stores. The young producers answered questions about animal health, beef nutrition and cooking methods.

During the tour, the group also visited the Applebee’s corporate offices to learn how they market beef in their 2,000 restaurants and heard from staff at Bartlett and Company about risk management in the cattle and grain industries.

The third installment of the class will be held in October. Members will tour Kansas beef and dairy operations to gain a better understanding of each industry segment.

Pollinator habitats now eligible for conservation

Adrian J. Polansky, state executive director of the U.S. Farm Service Agency, says pollinator habitats, which support a variety of pollinator species, will now be accepted as a Continuous Sign-up Conservation Reserve Program practice.

This is a voluntary program that helps producers apply conservation practices to safeguard environmentally sensitive land.

Pollinator habitats are areas of permanent vegetation located in an agricultural landscape: field edges, field middles, odd corners

or any agricultural location that is suitable for establishing pollinator habitat.

Pollinators provide an important ecological service. About three quarters of all flowering plants rely upon external assistance to pollinate their flowers. In addition to agricultural crops such as fruits and vegetables, these plants include seed-producing wildflowers, fruit-producing shrubs and nut-producing trees which provide a source of food for wildlife.

Studies indicate that birds, bees, bats and other pollinators are in

significant decline across the country and around the world. Nearly 80 percent of the crops grown in the world require pollination.

Participants of newly enrolled pollinator habitat practices are eligible to receive a \$150 sign-up incentive payment per acre, a one-time payment issued after the contract is approved. Practices that qualify include pollinator habitats, wetland restoration which restores wetland ecosystems that have been devoted to agricultural use and habitat buffers for upland

birds. The payment for other continuous sign-up practices remains unchanged.

Continuous sign-up allows participants to submit offers for selected practices at anytime instead of waiting for a general sign-up period. Participants and offered lands must meet eligibility requirements.

For information, contact the Farm Service Agency county office at 915 E. Walnut, 462-7671, or go to www.fsa.usda.gov/ks.

