A Star That May Shine Green

NASA shared a new space image showing how a white dwarf star can get an unexpected color.

A greenish-white dwarf star is circled by a thin ring of gas and rocks in space.

NASA's Astronomy Picture of the Day shared a new space image on October 22. It shows WD J1330+6435, a white **dwarf** star. A white dwarf is the small, faint leftover core of a star like the Sun. This one is shown with a ring of gas and rocks around it. That ring is called an accretion disk, which means **material** is circling the star.

The surprising part is the color. According to NASA's Astronomy Picture of the Day, astronomers recently found that some white dwarf stars may not look plain white. Some could appear yellow, green, **cyan**, pink, or purple. Cyan means a blue-green color, like bright pool water. These stars are still too faint for people to see with just their eyes. So this is not a new green dot to find in the night sky. It is a clue found by scientists using careful observations.

Most stars we see look white from Earth. Some look red or blue. NASA explains that a star's color is often tied to temperature. Blue stars are hotter than red stars. White dwarfs are different in this story. Tiny bits of other materials can mix with the gas around them. Scientists call those tiny bits trace elements. When those elements interact with the star's atmosphere, or outer gas layer, they can shift the color.

Imagine standing under a dark sky. Stars would mostly look like tiny points, not colored balls. They are so far away that even giant stars shrink to pinpricks.

This new idea is not about seeing a big green sun overhead. It is about learning that starlight can carry hidden information. The color of light can tell scientists what is happening at a star's **surface**.

The disk around WD J1330+6435 also makes the scene feel familiar. It is a little like crumbs circling a drain, but in space. Gas and rocks move around the star. The article says these materials were accreted, which means pulled in and added to the star. That material can change what the starlight looks like.

This matters because color is one of astronomy's tools. A telescope does not just take pretty pictures. It helps scientists ask what something is made of. If a white dwarf seems green, that color is **evidence**, or a sign scientists can study. It may show the star picked up material.

Written from reporting by NASA.

THINK IT THROUGH

1. **An artist's illustration can show a star we cannot see with our eyes. Is that helpful, risky, or both?**

2. **Should scientists spend time studying stars that are too faint for most people to see? Defend your answer.**

3. **Color is a clue in this story. Where else can color give important information, and how is that similar or different?**

Elementary · Thursday, October 22, 2026 · © 2026 3andB Inc.

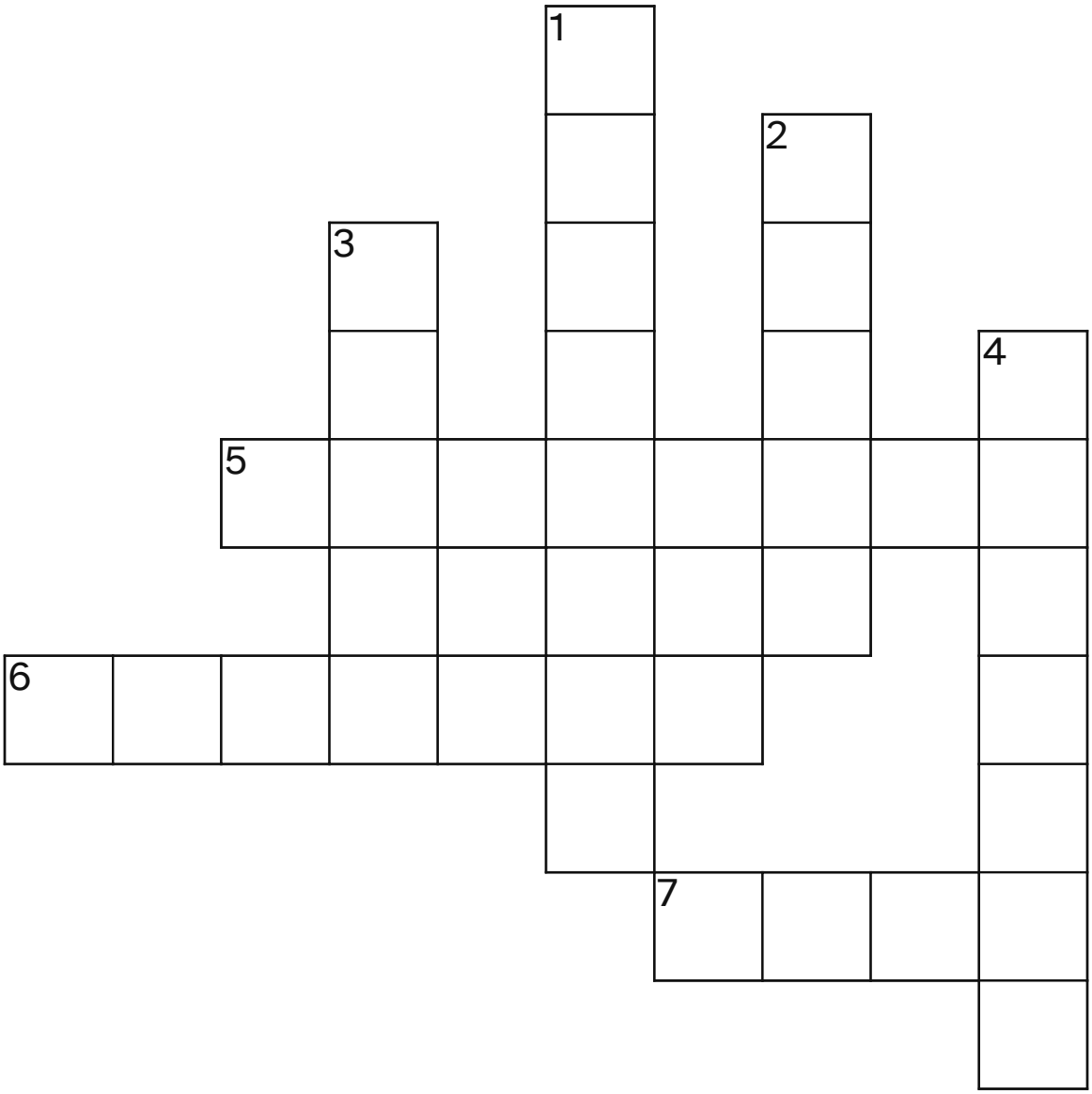
A Star That May Shine Green

I	R	M	A	T	E	R	I	A	L
T	L	E	A	W	V	N	P	U	L
E	A	R	M	W	I	R	Z	I	O
R	E	T	E	N	D	L	C	N	S
E	N	C	C	E	E	W	Y	E	N
E	L	E	M	E	N	T	A	O	E
S	U	R	F	A	C	E	N	R	E
C	N	P	L	L	E	E	S	B	F
R	L	M	E	T	M	F	U	I	S
T	N	U	O	E	U	D	I	T	R

CYAN DWARF ELEMENT EVIDENCE MATERIAL ORBIT SURFACE

Elementary · Thursday, October 22, 2026 · © 2026 3andB Inc.

A Star That May Shine Green



ACROSS

5 Gas, rocks, or other stuff that can be pulled into a star

6 Outer part where an object meets the space around it

7 Bright color between blue and green

DOWN

1 Sign scientists study to learn what is happening

2 Curved path an object follows around another in space

3 Small, dim leftover core of a star like the Sun

4 Basic kind of matter found in gas, rocks, and more

Elementary · Thursday, October 22, 2026 · © 2026 3andB Inc.

Where this came from

This article was written for 3andB from the reporting below. It is not a reprint — the wording is ours and the facts are theirs.

NASA

"APOD: 2026 October 22 – The First Green Star, WD J1330+6435"

Published	Thursday, October 22, 2026
Read by us on	Thursday, October 22, 2026

https://science.nasa.gov/image-article/apod-2026-october-22-the-first-green-star-wd-j13306435/

WHAT IS IN THIS PACKET

The article and its discussion questions, a word search, and a crossword.

COPYING AND REUSE

Free to print, copy and hand out for classroom use. Please keep this page with the packet, so the next teacher can see where the story came from.

More where this came from

If this short lesson worked for your class, our full workbooks go further with the same care:

- Complete units with student and teacher editions
- Worked solutions for every exercise
- Standards-aligned, classroom-tested, print-ready

See the full lessons at 3andB.com

© 2026 3andB Inc.