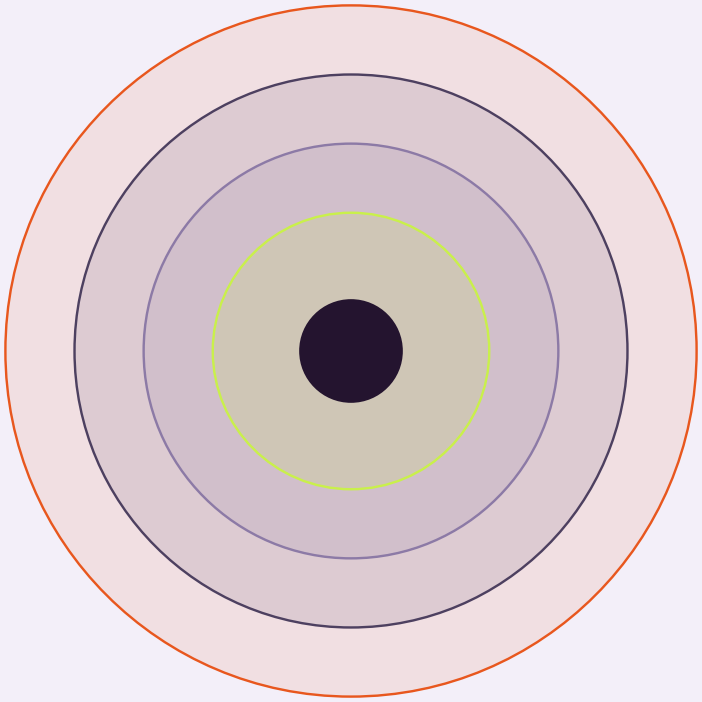


Astrophysics for People in a Hurry

A reading of the book by Neil deGrasse Tyson (2017)

1. ACTION BOOK

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ABOUT THIS EDITION

This is HourLife's reading of Astrophysics for People in a Hurry, in our own words. It is not a substitute for the book.

BEFORE YOU START 01

The book in a minute

Neil deGrasse Tyson is an astrophysicist and the director of the Hayden Planetarium at the American Museum of Natural History in New York. This short book is written for readers who want the big ideas of modern astrophysics without taking a course. In brief chapters he moves from the first moments after the Big Bang to the laws of physics that hold everywhere, the light left over from the early universe, dark matter and dark energy, the elements of the periodic table, and why stars and planets are round. He explains how scientists came to know these things through measurements and discoveries, not equations. The final chapter turns to the cosmic perspective: what knowing our place in the universe can do for how we see ourselves and each other.

Below are the 9 ideas HourLife readers vote up most, each in our words with a note on what it asks of you, and then the steps that put them to work.

WHAT READERS KEEP

The takeaways

1

HOURLIFE TAKEAWAY

Everything you can touch is the cooled-down leftover of a universe that began about 13.8 billion years ago.

The opening chapter runs through the first moments, when the universe was hotter and denser than anything we can make. The forces of nature split apart, particles formed, and matter slightly outnumbered antimatter, so something was left over once the two cancelled out. That remainder became the gas, stars and planets that followed.

2

HOURLIFE TAKEAWAY

The laws of physics work the same everywhere we look, and that is what makes the universe knowable.

Tyson treats this as the quiet discovery behind all of astrophysics. Newton showed that the gravity that drops an apple also keeps the Moon in orbit. Light from distant stars carries the fingerprints of the same elements we find on Earth, and helium was spotted in the Sun's light before anyone found it here.

3

HOURLIFE TAKEAWAY

Looking far away means looking back in time.

Light travels at about 300,000 km a second, so it takes time to cross space. Sunlight is about eight minutes old when it reaches you. The oldest light we can catch, the cosmic microwave background, set out when the universe was a few hundred thousand years old, and it was first picked up as a stubborn hiss in a radio antenna.

4

HOURLIFE TAKEAWAY

Most of the matter in the universe is something we cannot see.

Galaxies and clusters of galaxies move as if they hold far more mass than their stars and gas. That extra gravity is called dark matter, and it outweighs ordinary matter by roughly five to one. Tyson is plain that no one yet knows what it is made of, and he treats that as an open question rather than an embarrassment.

5

HOURLIFE TAKEAWAY

The expansion of the universe is speeding up, and the cause has a name but no explanation.

In 1998 two teams measuring distant exploding stars found that the expansion is accelerating. Whatever pushes it is called dark energy, and it makes up most of the universe's total budget of matter and energy. Einstein had once put a similar term into his equations and later dropped it.

6 HOURLIFE TAKEAWAY

The atoms in your body were made in stars.

Hydrogen and most of the helium came out of the Big Bang. Carbon, oxygen and much of the rest were built inside stars and scattered when those stars died. The chapter on the periodic table reads as a tour of where each element comes from and where it turns up in space.

7 HOURLIFE TAKEAWAY

Gravity makes anything big enough round.

Past a certain size, an object's own gravity pulls it in on itself until it settles into a sphere. Spin flattens it a little, which is why Earth bulges at the equator. Small asteroids never get there and stay lumpy, so roundness is a clue to size.

8 HOURLIFE TAKEAWAY

Most light is invisible to us, and each kind shows a different sky.

Our eyes catch a narrow slice of the spectrum. In 1800 William Herschel found infrared when a thermometer warmed up past the red end of a prism's rainbow. Radio, microwave, X-ray and gamma-ray telescopes each reveal things that visible light would never show.

9 HOURLIFE TAKEAWAY

Knowing how small we are should shrink our quarrels, not our sense of worth.

The last chapter makes the case for the cosmic perspective. We are tiny next to the universe, yet we come from the same history and the same elements as everything in it. Tyson sees that as a reason for curiosity, humility and care for each other and the planet.

PUT IT TO WORK

Your action book

Do the setup steps once, then keep the habits going. The setup changes your week; the habits keep it changed after the first good one.

The download puts this whole reading and a printable action book in one PDF: the setup checklist, then a page of real calendar days for each habit, starting on the day you choose.

SET UP ONCE

- [ ] Find your nearest dark sky
- [ ] Get a star chart
- [ ] Read one chapter per sitting
- [ ] Bookmark a daily space picture
- [ ] Plan a Moon night

KEEP UP DAILY

- ◯ Ask how we know
- ◯ Take five minutes under the sky
- ◯ Explain one idea out loud

30 days · Nov 6 - Dec 5, 2026

Part two, after the reading, prints each of these as a page to fill in by hand.

THE LAST WORD

Before you go

Pick one step from the action book and do it today. An idea from a book starts to count once it changes what one ordinary day looks like.

PART TWO

The action book

Change the setup once, then keep it up. 5 setup actions to do once, and 3 habits to mark each day for 30 days.

Nov 6 - Dec 5, 2026

Print it, or write on it in any PDF app.

SET UP ONCE

The setup checklist

Each of these is done once. Do one a day, and check it off when it is done.

- [ ] SETUP 1

Find your nearest dark sky

Open a light-pollution map and find the darkest spot you could reach within an hour.

Put a clear-night visit on your calendar for this month.

MY VERSION

DONE ON

- [ ] SETUP 2

Get a star chart

Install a free planetarium app or print this month's star chart.

Use it tonight to name three bright things you can see from your window.

MY VERSION

DONE ON

- [ ] SETUP 3

Read one chapter per sitting

The chapters are short on purpose.

Pick a slot you already have, like a commute or a coffee, and read one chapter there until you finish the book.

MY VERSION

DONE ON

- [ ] SETUP 4

Bookmark a daily space picture

Add NASA's Astronomy Picture of the Day to your bookmarks or home screen.

It posts one image with a short explanation every day.

MY VERSION

DONE ON

- [ ] SETUP 5

Plan a Moon night

Look up this month's first quarter Moon.

On that evening, look at the line between light and shadow with binoculars, where the craters stand out most.

MY VERSION

DONE ON

DAILY HABIT 1 OF 3

Ask how we know

When you meet a claim about space, or anything else, ask what measurement it rests on.

Nov 6 - Dec 5, 2026 · 30 days · circle each day you do it

SMALLEST VERSION

CUE

WHERE

November 2026

MON	TUE	WED	THU	FRI	SAT	SUN
						1
2	3	4	5	6 ○	7 ○	8 ○
9 ○	10 ○	11 ○	12 ○	13 ○	14 ○	15 ○
16 ○	17 ○	18 ○	19 ○	20 ○	21 ○	22 ○
23 ○	24 ○	25 ○	26 ○	27 ○	28 ○	29 ○
30 ○						

December 2026

MON	TUE	WED	THU	FRI	SAT	SUN
	1 ○	2 ○	3 ○	4 ○	5 ○	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

EACH FRIDAY

WHAT HELPED

WHAT GOT IN THE WAY

ONE CHANGE TO THE SETUP

DAILY HABIT 2 OF 3

Take five minutes under the sky

Once a week after dark, step outside, let your eyes adjust for a few minutes, and find one thing you named last time.

Nov 6 - Dec 5, 2026 · 30 days · circle each day you do it

SMALLEST VERSION

CUE

WHERE

November 2026

MON	TUE	WED	THU	FRI	SAT	SUN
						1
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EACH FRIDAY

WHAT HELPED

WHAT GOT IN THE WAY

ONE CHANGE TO THE SETUP

DAILY HABIT 3 OF 3

Explain one idea out loud

Each week, explain one idea from the book to a friend or a child in two minutes, such as why looking far away means looking back in time.

Nov 6 - Dec 5, 2026 · 30 days · circle each day you do it

SMALLEST VERSION

CUE

WHERE

November 2026

MON	TUE	WED	THU	FRI	SAT	SUN
						1
2	3	4	5	6 ○	7 ○	8 ○
9 ○	10 ○	11 ○	12 ○	13 ○	14 ○	15 ○
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30 ○						

December 2026

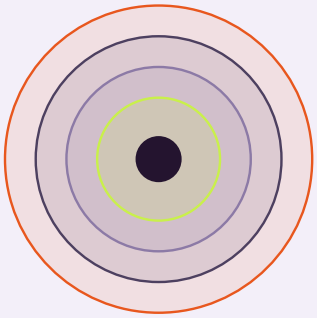
MON	TUE	WED	THU	FRI	SAT	SUN
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EACH FRIDAY

WHAT HELPED

WHAT GOT IN THE WAY

ONE CHANGE TO THE SETUP



The universe is vast and mostly unseen, and you are made of its stars. Hold both facts at once.

HOURLIFE NOTE AFTER NEIL DEGRASSE TYSON