



✓ Answer Key — Nancy Grace Roman Space Telescope

READING PASSAGE

No answers required — this is a reading page.

? COMPREHENSION

1. It is named after Nancy Grace Roman, NASA's first Chief of Astronomy and the 'Mother of Hubble'.
2. The SpaceX Falcon Heavy rocket.
3. Its main camera is called the Wide Field Instrument (WFI), and it has 288 megapixels.
4. It can photograph 100 times more sky.
5. Scientists hope to search for exoplanets and study mysterious dark matter and dark energy.

VOCABULARY

Observatory:	A building or place equipped for observing celestial bodies or phenomena.
Megapixel:	A unit of graphic resolution equivalent to one million pixels, used especially to indicate the size of a digital image.
Cosmos:	The universe regarded as an orderly, harmonious system.
Astronomy:	The scientific study of celestial objects (such as stars, planets, comets, and galaxies) and phenomena that originate outside the Earth's atmosphere.
Payload:	The part of a rocket or spacecraft that carries instruments, experiments, or other cargo.
Orbit:	The curved path, usually elliptical, followed by a planet, moon, or satellite as it revolves around a star, planet, or larger body.

MATH PROBLEMS

1. 273 megapixels
 $288 - 15 = 273$
2. 500 square degrees
 $5 \times 100 = 500$
3. 67 years
 $2026 - 1959 = 67$
4. 1980
 $1959 + 21 = 1980$

DATA TABLE

1. Hubble Space Telescope
2. Hubble Space Telescope and James Webb Space Telescope
3. 36 years

WRITING PROMPT

See student response.

TIMELINE — CORRECT ORDER

1. **1959** — Nancy Grace Roman starts working at NASA as the first Chief of Astronomy.
2. **1990** — The Hubble Space Telescope, which Nancy Grace Roman helped plan, is launched into orbit.
3. **2010** — NASA begins developing a new space telescope, originally called WFIRST, to study dark energy.
4. **2020** — NASA officially names the new observatory the Nancy Grace Roman Space Telescope.
5. **2026** — The Nancy Grace Roman Space Telescope is scheduled to launch from Kennedy Space Center.

MATCHING

1. **Nancy Grace Roman** → First Chief of Astronomy
2. **Roman Telescope** → Studies dark energy and exoplanets
3. **Falcon Heavy** → Launch rocket
4. **Wide Field Instrument** → Main camera on Roman
5. **Hubble Space Telescope** → Takes narrower, deeper pictures
6. **Kennedy Space Center** → Florida launch site
7. **288 Megapixels** → High-resolution camera
8. **Dark Energy** → Universe expansion mystery
9. **Astronomy** → Study of space

WORD SEARCH

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

CROSSWORD

Across

5. **FALCONHEAVY** Rocket launching the telescope
6. **ROMAN** Last name of NASA's first Chief of Astronomy
8. **DARKMATTER** Invisible substance that Roman will study
9. **SPACEX** Launch company for the rocket

Down

1. **KENNEDY** Launch center in Florida
2. **DARKENERGY** Mysterious force making the universe expand
3. **EXOPLANETS** Roman will search for these planets beyond our solar system
4. **NANCYGRACE** The name of the pioneering astronomer the telescope honors
7. **NASA** Space agency behind the mission

 SECRET SPACE MESSAGE

1. [NASA](#)
2. [ROMAN](#)
3. [HUBBLE](#)
4. [ORBIT](#)
5. [COSMOS](#)
6. [ROCKET](#)