A 7-DAY PRINT-AND-PLAY SPACE SCIENCE KIT • BY 10timesIt

GALAXIGAMI

FOLD IT. BUILD IT. EXPLORE THE GALAXY.

7 missions • 7 games • real science, math and building

AGES 6–10 • EASIER + HARDER VERSIONS

1 THE SUN
Sunshine Sort-Out
Build: cardboard shadow clock

2 THE MOON
Moon Phase Detective
Build: shoebox Moon viewer

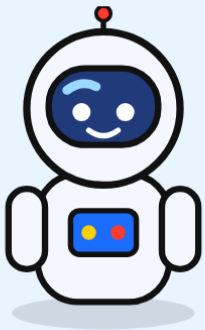
3 GRAVITY + ORBITS
Orbit Keeper
Build: cardboard gravity well

4 ROCKETS
Straw Rocket Launch Challenge
Build: bottle stomp launcher

5 PLANETS
Solar System Sprint
Build: cereal-box planet mobile

6 STARS + LIGHT
Star Light Lab
Build: tube star projector

7 ASTRONAUT LIFE
Space Station Mission Day
Build: cardboard robot arm



YOUR KID RUNS THE MISSION

EVERY DAY INCLUDES

- ★ A game with a role, a goal and a score
- ★ Physics, chemistry + math with 1 equation
- ★ Scissors + folding skill challenge
- ★ New words to read and trace
- ★ A 20-min cardboard build
- ★ A real kid-safe video (QR code)
- ★ Parent Feedback + Child Voice boxes
- ★ Gap tracker with an 8-min mini-game

1. Read the science + say it out loud
2. Cut, fold + play the game
3. Build it with boxes + tape
4. Watch the real video
5. Score it + fill the feedback

Uses household stuff: boxes, tape, straws, foil, a flashlight

Parent guide + materials list inside

PARENT GUIDE

Welcome to Galaxigami! Each day is one printable mission sheet: some reading, a game with a score, a cardboard build and one short real video. Your job is easy: hand over the sheet, ask questions, and let your child do the thinking.

HOW TO RUN THE WEEK

- Print the 7 day sheets (one-sided is best for cutting). Color looks best; black-and-white works.
- Check the materials list on page 2 and gather items the night before.
- Every day runs the same way: **Read** → **Cut + Play** → **Build** → **Watch** → **Score**.
- Pick the level: **Easier** (ages 5–7) or **Harder** (ages 9–11). Tips below.
- Do a day in one sitting, or split it: science + game in the morning, build + video later.
- Skipped a day? No problem. The days work in order but don't need to be on back-to-back days.

A 60-MINUTE DAY

Step	Min
1. Read the 3 science boxes + say the Say This! line	8
2. Cut + fold, then play the game and fill the scoreboard	12
3. Bonus lab (if time)	5
4. 20-minute Crunchlabs-style build + take-apart bonus	20
5. Watch the video (scan the QR code) + answer its question	6
6. Trace words, star score, Parent Feedback + Child Voice	4
7. Gap game: only if something didn't click	8

Short on time? Do steps 1, 2, 5 and 6 (about 30 minutes), then build another day.

SAFETY FIRST

- **Never look at the Sun**, not even with sunglasses or through a tube. Day 1 uses shadows only.
- Supervise scissors. Younger kids use blunt-tip scissors, and a Parent cuts thick cardboard.
- **Balloons are a choking hazard for children under 8.** The Parent handles the Day 4 balloon rocket and throws away popped pieces.
- Adults only: craft knives, pushpins and poking holes (Days 1, 6 and 7), and screwdrivers for the take-apart bonuses. Unplug and remove batteries first.
- Do water and flour activities on a tray or outside (Days 2 and 7). Small marbles and beans are a choking hazard for little siblings.
- Watch each video first, and watch together. Turn off autoplay so the next video doesn't start by itself.

FEEDBACK, CHILD VOICE + JOURNEY

- **Parent Feedback box:** write what clicked and what was tricky. One line is enough.
- **Child Voice box:** ask “What did you notice?” and “What was your favorite part?” Write their exact words, or let them draw.
- **Learning Journey gap game:** if something was tricky, play that day's 8-minute gap game right away or at the start of the next day. Keep it playful, not a test.
- **Day 4 check:** read Days 1–3 feedback. Same trouble twice (measuring, math, explaining)? Switch to Easier for that part.
- **Day 7 review:** ask your child to teach you 3 big ideas from the week, in their own words.

EASIER / HARDER

- **Easier:** read the boxes aloud, do the cutting together, and use half the cards.
- **Easier:** give stars for trying. Skip the timer and the bonus lab.
- **Harder:** have your child predict before every test, then explain the equation.
- **Harder:** measure in cm, do a 2nd trial, and write one “why” sentence for each result.
- Every day's specific Easier and Harder ideas are in the Answer Key on page 2.

The 7 big space ideas: the Sun is a star • the Moon reflects sunlight • gravity + speed make orbits • rockets push gas back to go forward • planets get farther apart the farther out you go • star color shows heat • astronauts float because they fall around Earth

★ ★ DAY 1 ★ ★

MISSION ① ② ③ ④ ⑤ ⑥ ⑦

SUNSHINE SORT-OUT

SOLAR SCOUT • match the Sun facts, track a shadow, score big

PHYSICS

Sunlight travels in **straight lines**. When something blocks it, you get a **shadow**. When the Sun is low in the sky, shadows get long. At noon they are short.

Sun HIGH → short shadow
Sun LOW → LONG shadow

CHEMISTRY

The Sun is a giant ball of hot gas, mostly **hydrogen**. Deep inside, hydrogen squeezes together into **helium** and gives off light and heat.

hydrogen + hydrogen → helium + ENERGY

MATH

The Sun is about **150 million km** away. A car going 100 km every hour would need this many hours to get there:

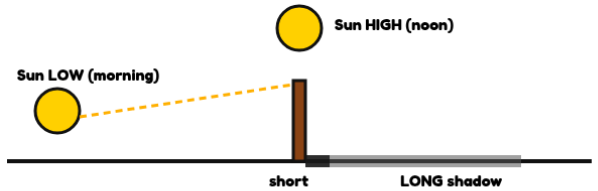
150,000,000 ÷ 100 = 1,500,000 hours

SAY THIS! **"The Sun is a star. It makes light, and blocked light makes a shadow!"**

CUT & FOLD: SUN FACT MATCH CARDS

Scissors skill! Cut out the 8 cards. Fold each card in half so the words hide inside. Mix them up face down.

? WHAT IS THE SUN? cut here	? MADE MOSTLY OF? cut here	? LIGHT TRIP TIME? cut here	? HOW FAR? cut here
A STAR cut here	HYDROGEN cut here	8 MIN 20 SEC cut here	150 MILLION km cut here



THE GAME: SUN FACT MEMORY

1. Lay all 8 cards face down. Flip 2 cards on each turn.
2. A question + its right answer = a MATCH. Keep it and score 1 point.
3. Explain the fact in your own words for +2 bonus points.
4. Play 3 rounds. Try to finish in fewer flips each time!

BONUS LAB: SHADOW TRACKER

Stand a pencil in play dough on a sunny windowsill. Mark the shadow tip and measure it 3 times in the day. NEVER look right at the Sun!

TRY	TIME	SHADOW LENGTH (cm)	LONGER or SHORTER?
1			
2			

GOAL + SCOREBOARD

Match all 4 pairs, explain each fact, and use fewer flips every round.

ROUND	MATCHES (of 4)	BONUS PTS	FLIPS
1			
2			
3			

NEW WORDS

- **STAR** a giant ball of glowing hot gas
- **SOLAR** about the Sun
- **SHADOW** a dark shape where light is blocked
- **CORE** the very hot center

WATCH IT

What Is the Sun?
SciShow Kids • 5:05
youtube.com/watch?v=0b3GcLE4Vlg
Video question: The Sun is a star. Why does it look so much BIGGER than other stars?

JOURNEY TRACKER GAP GAME (8 MIN): STAR OR PLANET?

Mixing up stars and planets? Parent says a name (Sun, Earth, Mars, Sirius...). Stand up tall for STAR (makes its own light), crouch for PLANET. 10 calls, 1 point each.

SUN SIZE FACT

The Sun is so big that more than **1 million Earths** could fit inside it! It only looks small because it is so far away.

CRUNCHLABS-STYLE BUILD — 20 MIN — CARDBOARD SHADOW CLOCK

cereal box · plate · pencil · paper-towel tube · tape · marker · scissors · ruler

1. Cut a circle from a cereal box or cardboard (a big plate is a good guide). Poke a pencil hole in the middle (Parent pokes it).
2. Push a pencil or paper-towel tube up through the middle. Tape it so it stands straight.
3. Set it in a sunny spot. Every hour, draw a line on the shadow and write the time. Watch the shadow swing around!
4. Take-apart bonus: flatten a cereal box with a parent. Find the glue flap and the folds that made it a box.

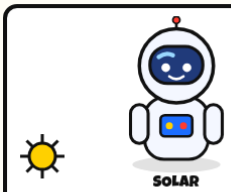
TRACE IT!

SUN STAR SOLAR SHADOW

SCORE!

☆ ☆ ☆ ☆

1 star per round with fewer flips



PARENT FEEDBACK

What clicked today? What was tricky?

.....

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CHILD VOICE

I noticed... my favorite part was...

.....

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