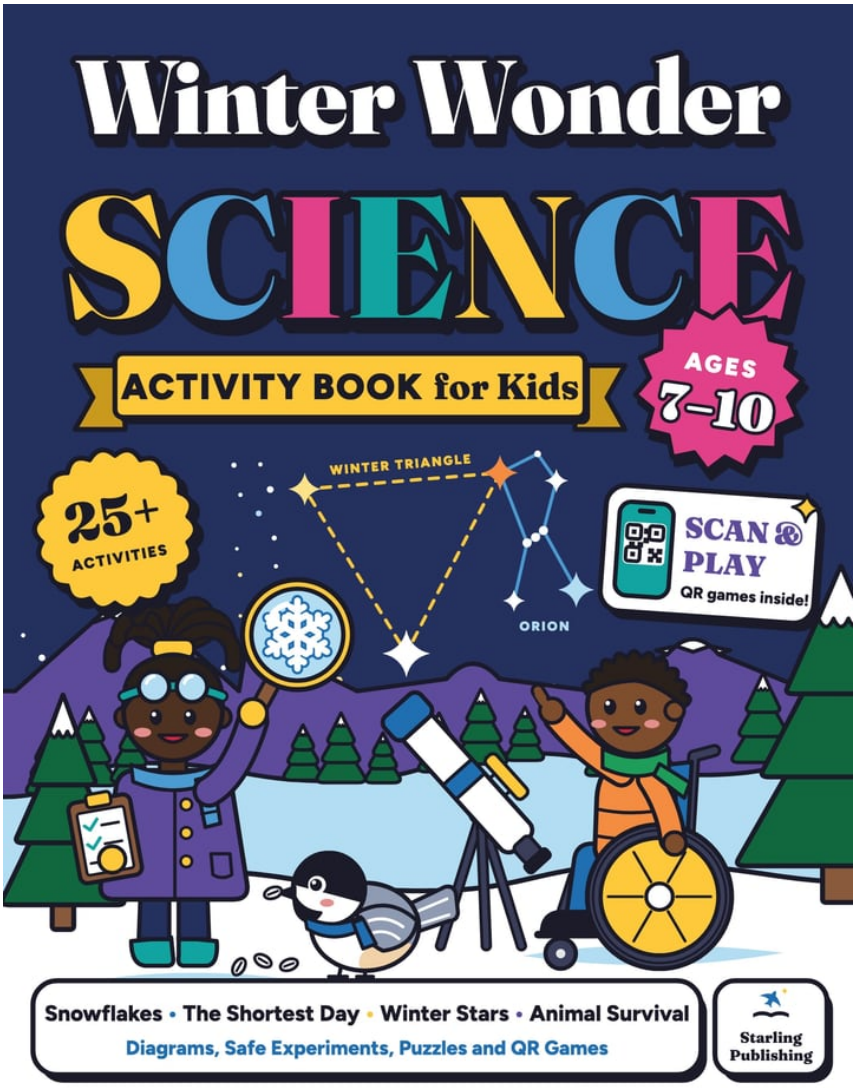
Free coloring pages

Winter Wonder Science Activity Book for Kids Ages 7-10

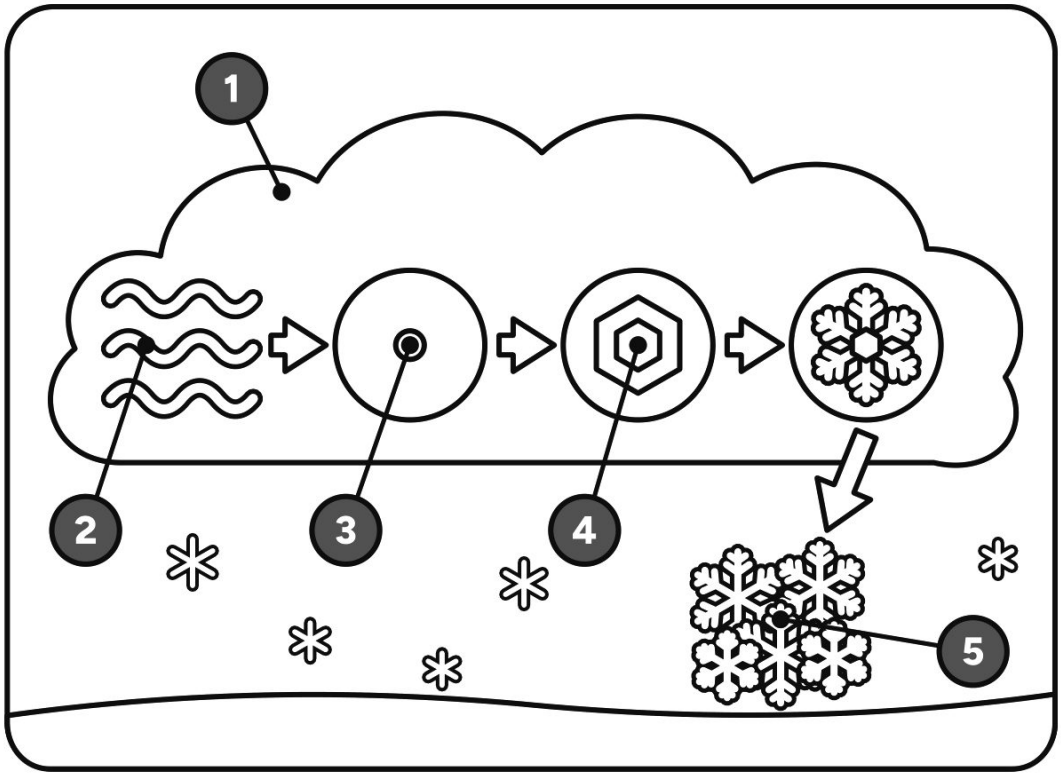


26 pages to print and color, from the book by Starling Publishing LLC.

Get the full book: https://books.starlingpublishingllc.com/winter-wonder-science-activity-book

How a Snowflake Grows

A snowflake grows inside a cloud. Read the word bank, then write each word next to its number.



Word bank cloud | ice crystal | snowflake | tiny speck | water vapor

1 _____ 2 _____ 3 _____

4 _____ 5 _____

Snow Science

Read these snow facts with a grown-up. Then scan the code for a quick quiz!



One of a kind

No two alike

Each snowflake takes its own path through the cloud, so no two are truly identical.



½ inch

Tiny flakes

Most snowflakes are smaller than half an inch (1.3 cm) across.



Reflects light

Why snow is white

Snow looks white because it reflects most of the sunlight that hits it.



Mostly air

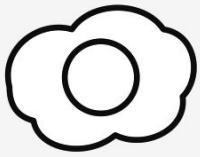
A snow blanket

Fresh snow is mostly air. That makes it a good insulator, like the insulation in a house.

Ice Lab: Melt It, Freeze It

Two experiments to try with a grown-up: melt an ice cube, then freeze it again. Number the steps from 1 to 5.

☐



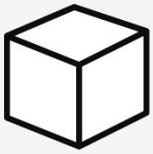
Last, think: a cooked egg can't change back.

☐



First, put one ice cube in a cup.

☐



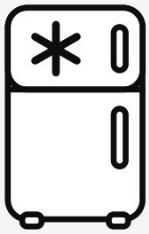
The next day, the water is ice again!

☐



Next, watch the ice melt into water.

☐



Then a grown-up puts the cup in the freezer.

Snow and Ice Words

Find the 10 snow science words. They go across, down and on a slant.

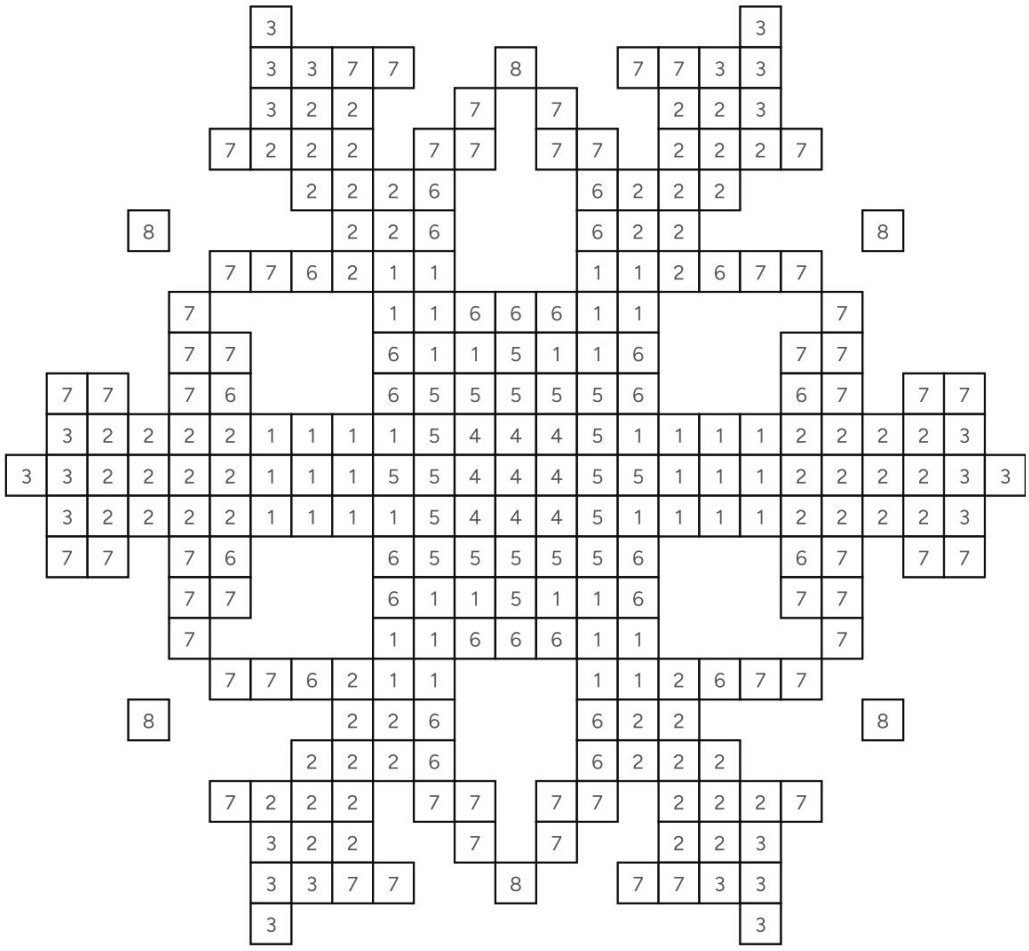
D	A	G	F	P	H	G	U	W	P	F	R
S	D	R	C	W	H	D	A	D	E	R	W
I	B	F	B	K	H	U	I	V	M	E	K
O	C	P	J	K	Y	H	R	C	F	E	I
K	O	E	A	S	J	E	C	R	L	Z	O
G	O	O	I	F	B	W	C	Y	A	E	R
F	F	W	F	V	N	U	U	S	K	D	U
M	S	R	P	R	A	J	C	T	E	G	D
E	P	R	O	G	N	P	V	A	H	S	F
L	E	N	V	S	K	B	O	L	M	E	D
T	C	Y	T	H	T	D	G	R	P	U	W
C	K	G	P	V	F	C	L	O	U	D	W

- ☐ CRYSTAL
- ☐ FLAKE
- ☐ FREEZE
- ☐ SPECK
- ☐ VAPOR
- ☐ FROST
- ☐ ICE
- ☐ CLOUD
- ☐ MELT
- ☐ AIR

SNOW AND ICE

Pixel Snow Crystal

Color each square with the color for its number to grow a six-armed snow crystal.



1 = Winter Blue **2** = Sky Blue **3** = Ice Blue **4** = Gold
5 = Butter Yellow **6** = Plum **7** = Teal **8** = Berry Pink

Math Code: The Secret of Snow

Solve each problem. Find the answer in the code key, then write its letter on the line.

A 1	B 2	C 3	D 4	E 5	F 6	G 7	H 8	I 9
J 10	K 11	L 12	M 13	N 14	O 15	P 16	Q 17	R 18
S 19	T 20	U 21	V 22	W 23	X 24	Y 25	Z 26	

_____ _____ _____ _____ _____ _____

12+7 2×7 3×5 30−7 17−8 10+9

_____ _____ _____ _____ _____ _____

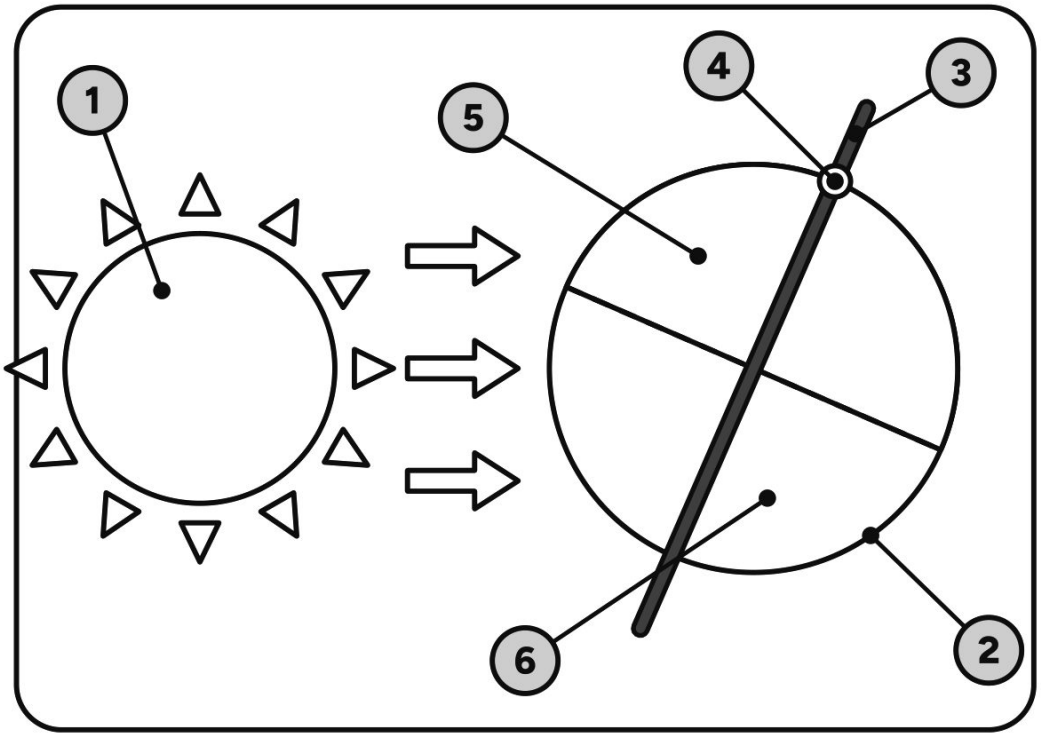
20−7 8+7 11+8 4×5 3×4 5×5

_____ _____ _____

9−8 3×3 9+9

Why We Have Winter: Earth's Tilt

This is Earth in December. Not to scale! Use the word bank to label each part.



Word bank Earth | North Pole | Northern Hemisphere | Southern Hemisphere | Sun | tilted axis

1 _____ 2 _____

3 _____ 4 _____

5 _____ 6 _____

The Shortest Day

Three big ideas about winter days. Scan the code for a quiz!



Shortest day

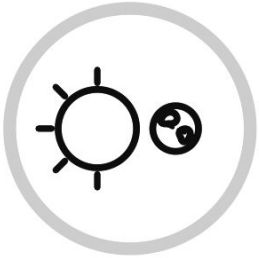
The winter solstice

The winter solstice is the shortest day and longest night of the year in the Northern Hemisphere. It comes each December.

Surprise!

Closest in January

Earth is closest to the Sun in early January, during northern winter. So distance does not cause the seasons. The tilt does!





93 million miles

Our star

The Sun is a star. It is about 93 million miles from Earth and about 100 times wider than Earth.

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Opposite Seasons

Draw a line from each idea on the left to its partner on the right.



December in the north



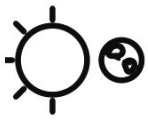
December in the south



The winter solstice



Earth's axis



Earth closest to the Sun

tilted 23.5 degrees

early January

winter

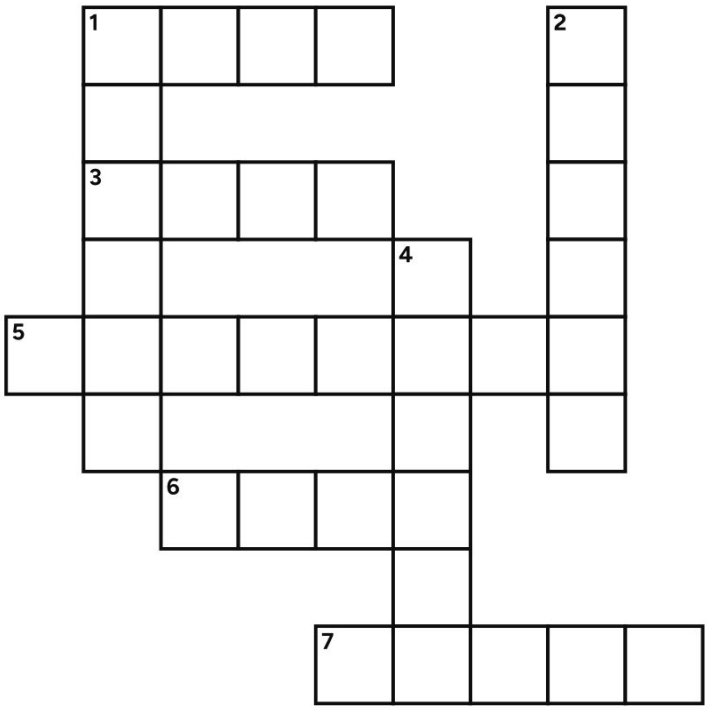
the shortest day up north

summer

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Seasons Crossword

Use your new science words. Write one letter in each box.



Across

1. The Sun is one of these (4)
3. Earth spins around this imaginary pole (4)
5. Winter ___: the shortest day of the year up north (8)
6. Earth's axis has a 23.5-degree ___ (4)
7. Earth's path around the Sun (5)

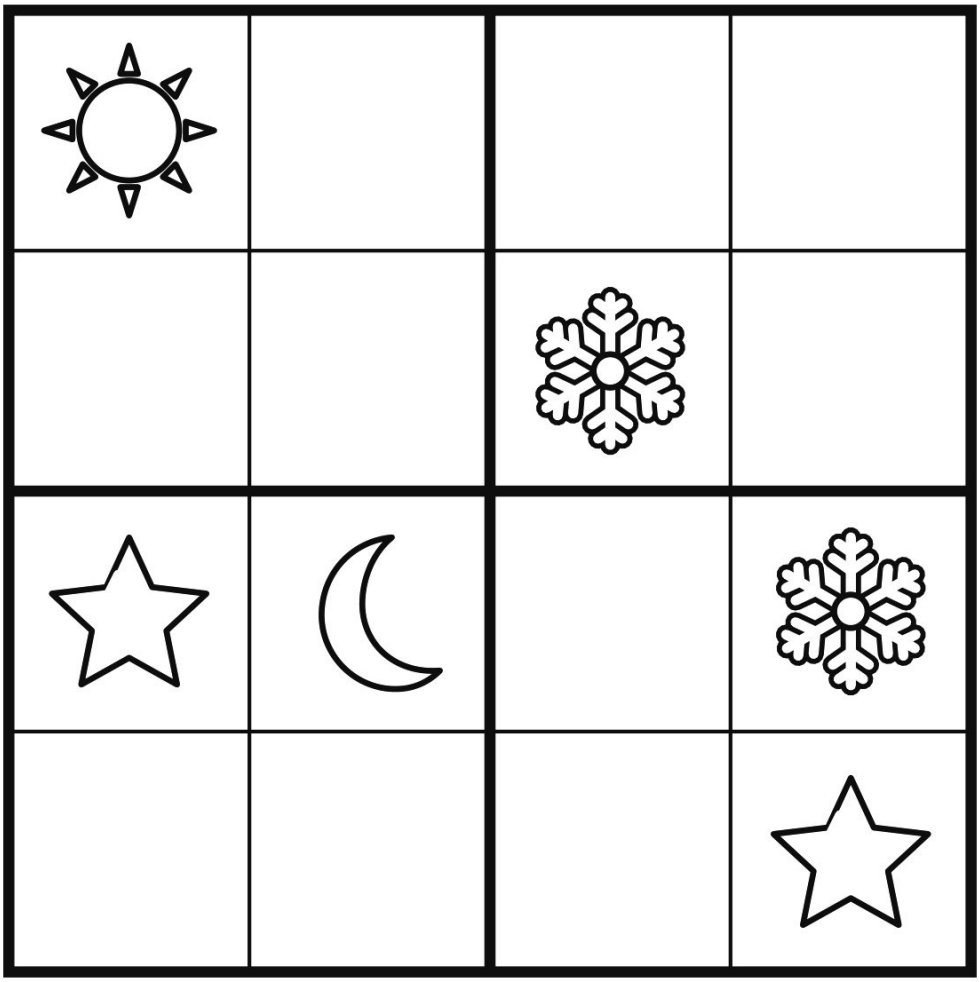
Down

1. Winter, spring, summer or fall (6)
2. The season down south in December (6)
4. The season up north in December (6)

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Sky Sudoku

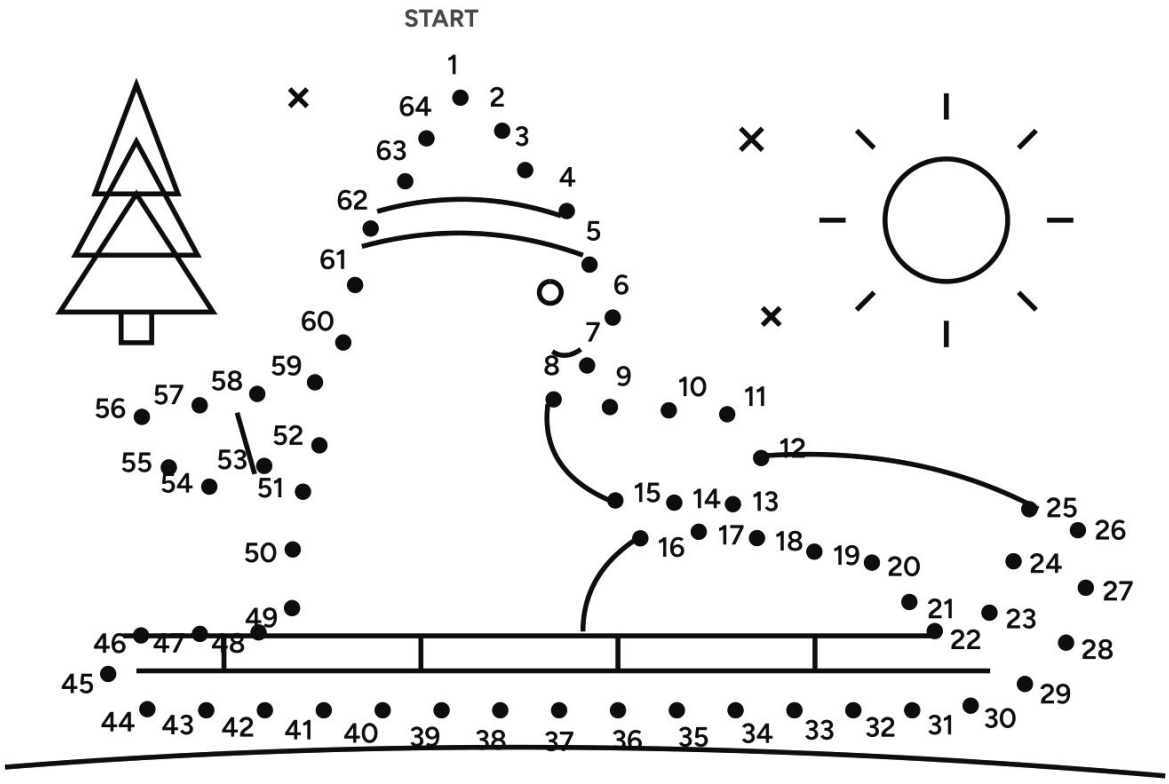
Draw the missing pictures so every row, column and box has one sun, moon, star and snowflake.





Who Is Zooming Down the Hill?

Connect the dots from 1 to 64, then color the picture. Finish by joining the last dot back to 1.



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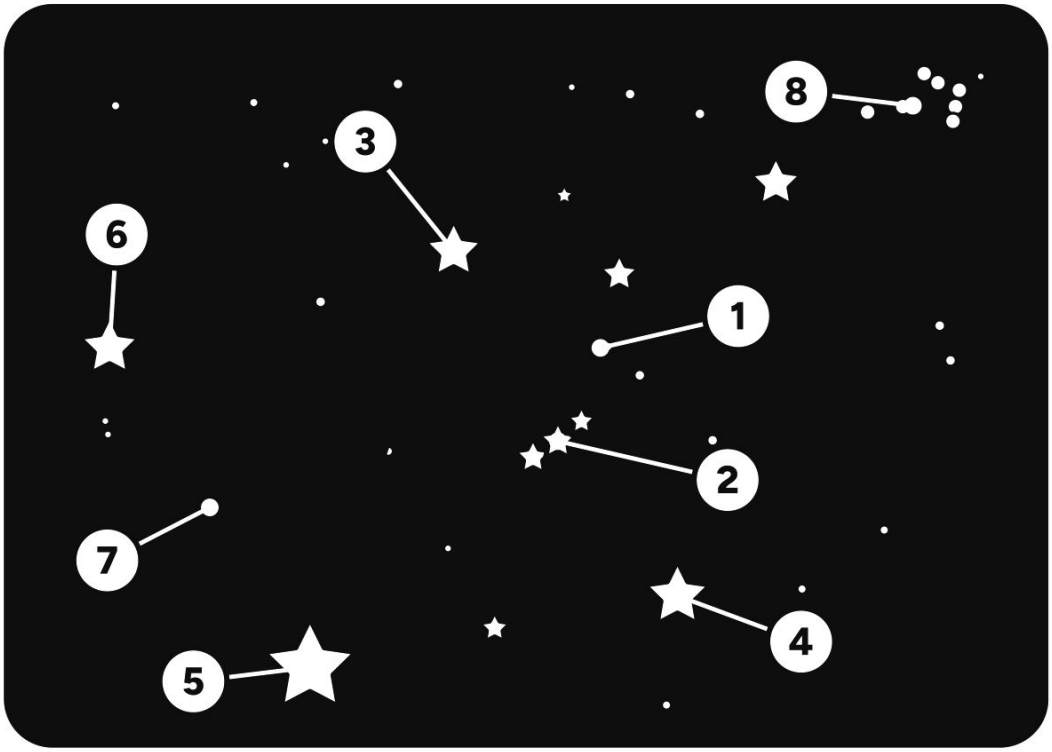
My 14-Day Weather Watch

Each day, draw the sky and write a weather word: sunny, cloudy, snowy, rainy or windy. After 14 days, which weather came most?

1	2	3	4	5	6	7
Weather word:	Weather word:	Weather word:	Weather word:	Weather word:	Weather word:	Weather word:
8	**9**	**10**	**11**	**12**	**13**	**14**
Weather word:	Weather word:	Weather word:	Weather word:	Weather word:	Weather word:	Weather word:

Winter Sky Map

Label the winter sky with the word bank. Not to scale: bigger stars are brighter.



Word bank Betelgeuse | Orion | Orion's Belt | Pleiades | Procyon | Rigel | Sirius | Winter Triangle

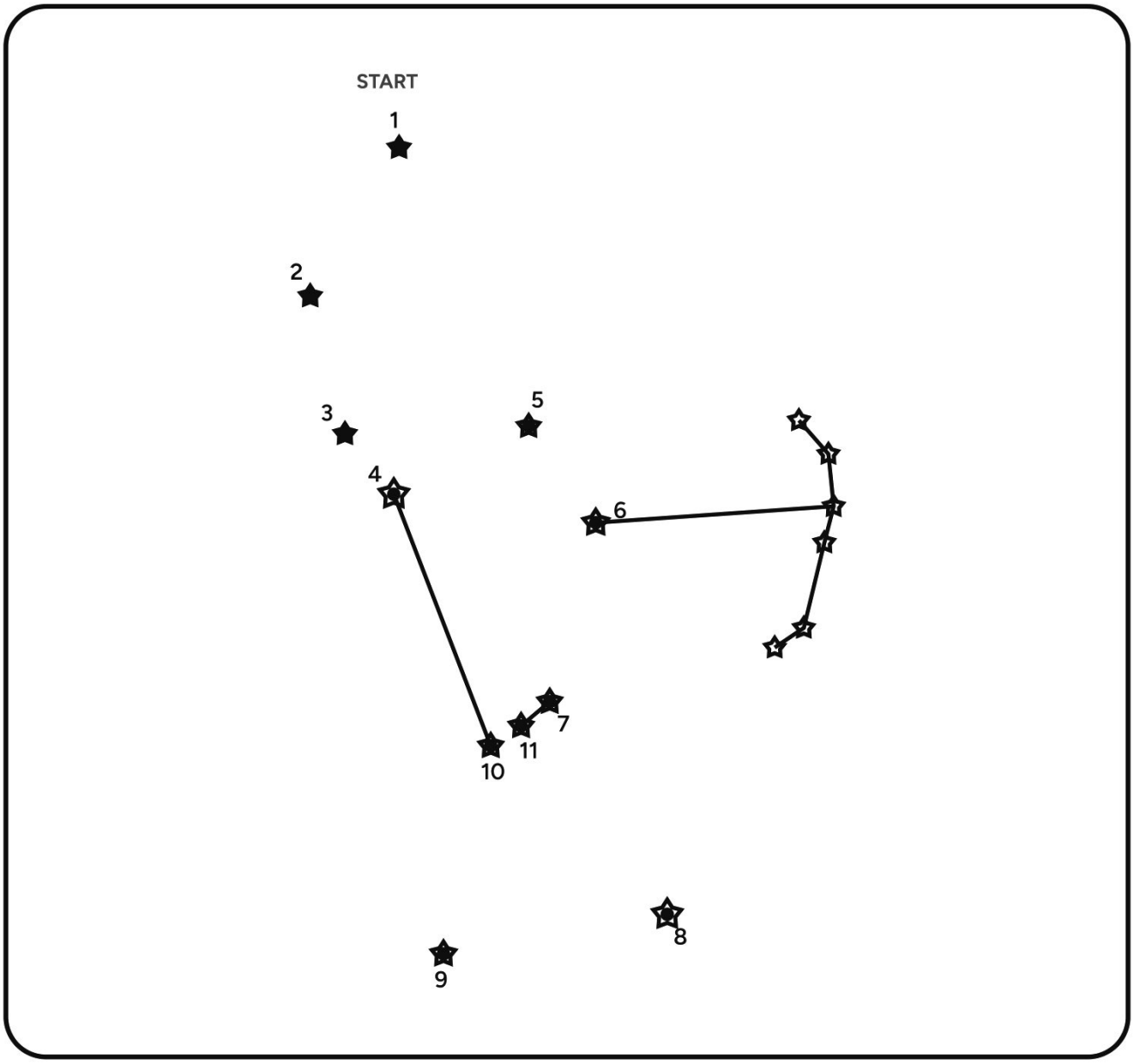
1 _____ 2 _____ 3 _____

4 _____ 5 _____ 6 _____

7 _____ 8 _____

Connect the Stars of Orion

Join the stars from 1 to 11 to finish Orion the Hunter. People made up these lines to help find stars; they are not real lines in space.



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Star Facts

Read with a grown-up, then look for these stars on a clear night!



3 stars in a row

Find Orion's Belt

You can find Orion by the three bright stars in a row that make Orion's Belt.



Brightest star

Sirius, the Dog Star, is the brightest star in the night sky.



Seven Sisters

The Pleiades star cluster can be seen without a telescope.



Star seasons

Some stars can only be seen in certain months of the year.



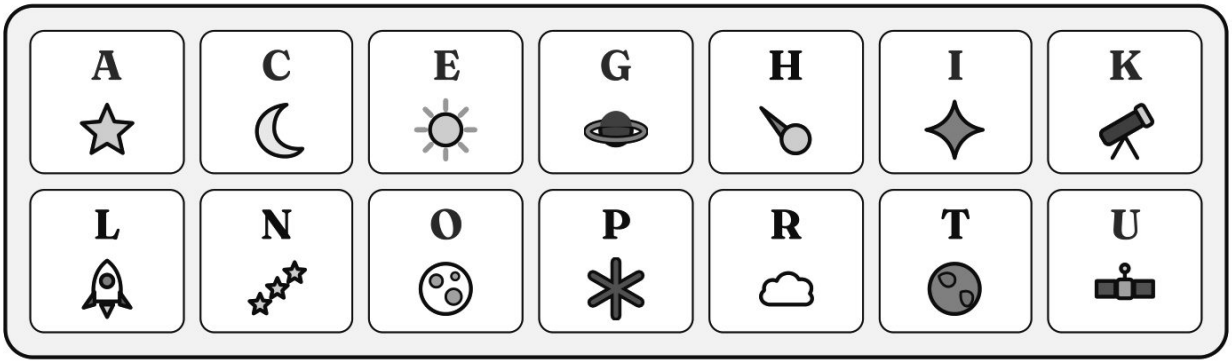
Our own star

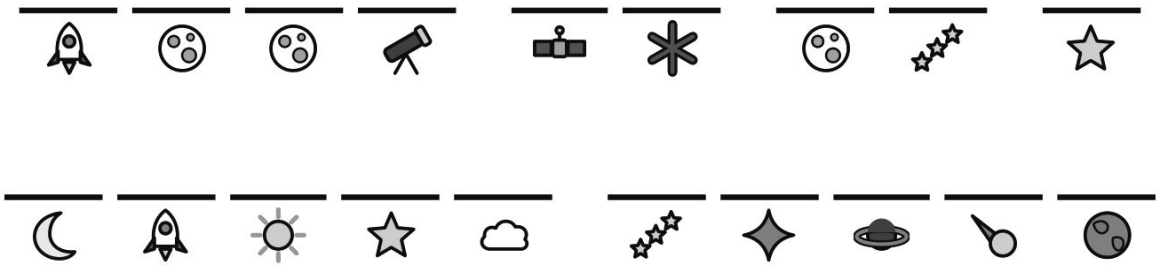
The Sun is a star too. It is our solar system's only star.

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Star Symbol Code

Find each picture in the key and write its letter on the line to read Theo's tip.

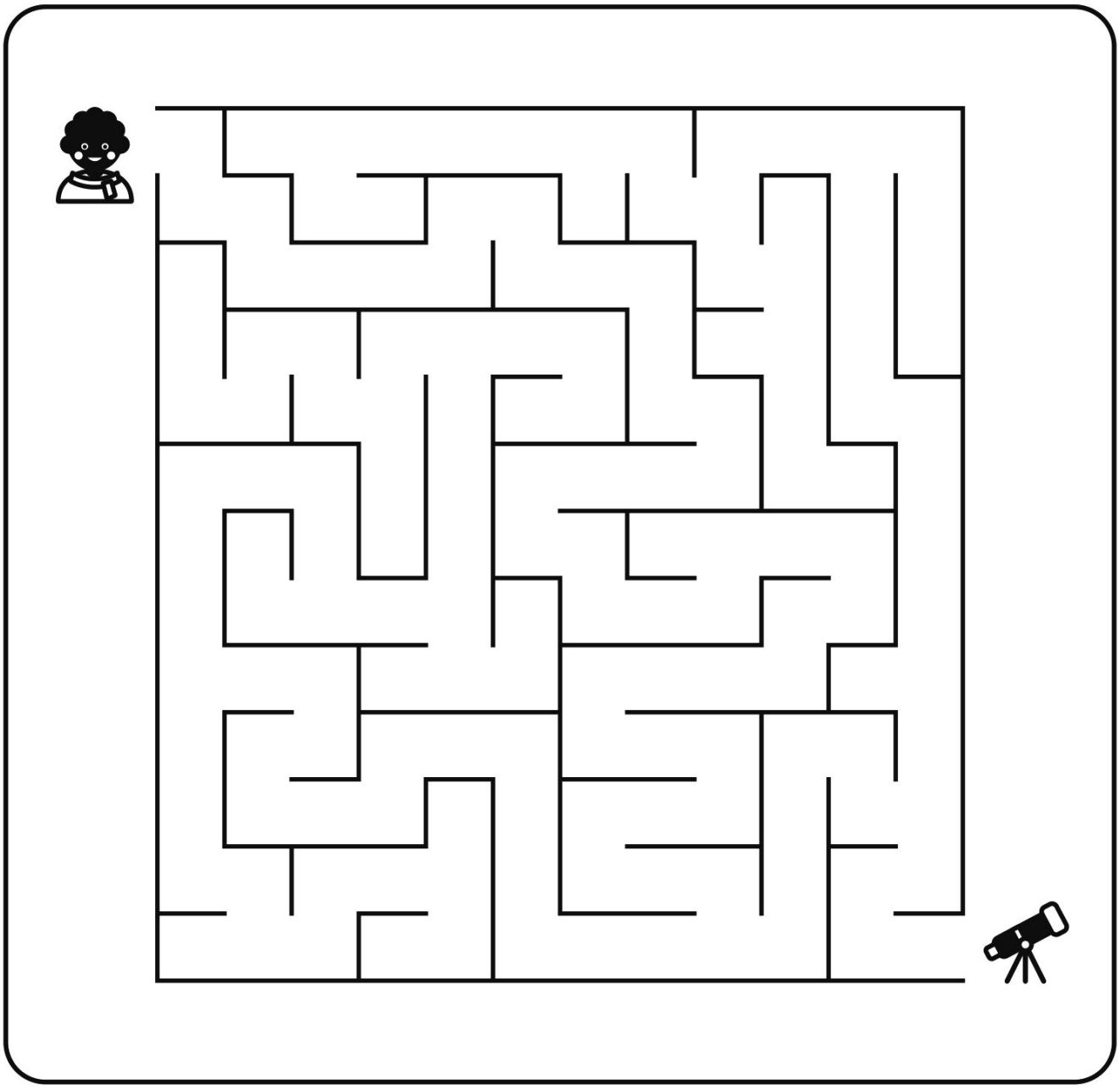




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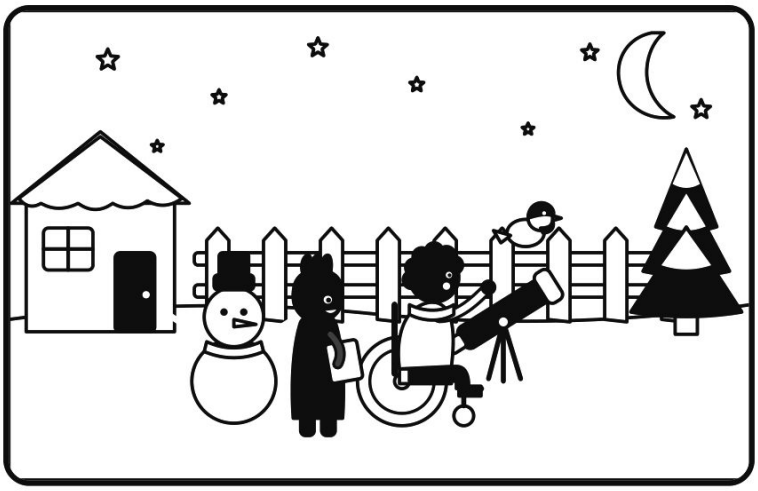
Backyard Stargazing Path

Help Theo find the path across the snowy yard to the telescope!

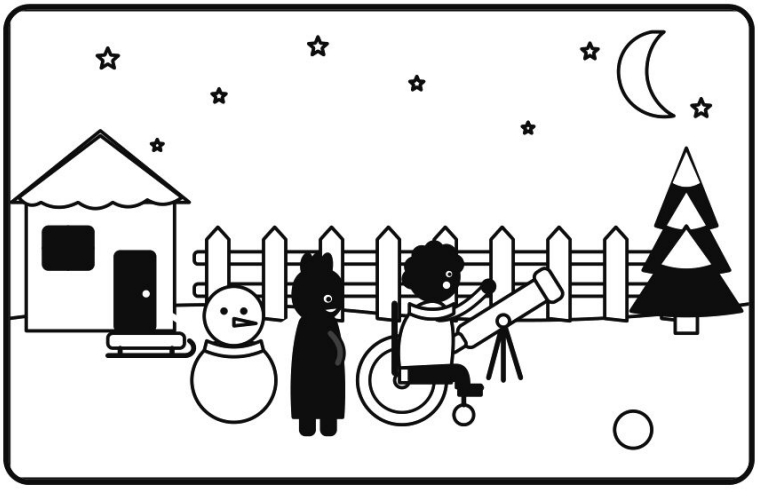


Two Backyard Nights

The sky is the same, but 8 things in the yard changed. Circle each difference in Picture 2!



PICTURE 1



PICTURE 2

I found: ○ ○ ○ ○ ○ ○ ○ ○

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Winter Plans

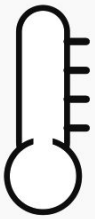
How does each animal get through winter? Draw a line to its plan.

 dormouse	can freeze and thaw
 wood frog	stores food, doesn't hibernate
 tree squirrel	migrates south
 snowshoe hare	hides seeds, remembers where
 monarch	turns white in winter
 chickadee	hibernates up to 11 months

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The Penguin Huddle

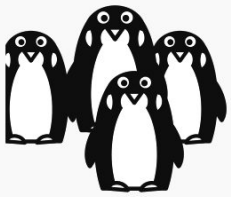
Emperor penguin dads take turns in the warm middle. Number the steps from 1 to 5.

☐ 

He moves into the warm middle of the huddle.

☐ 

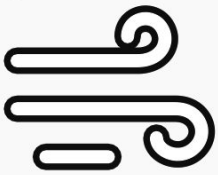
A penguin dad holds the egg on his feet.

☐ 

The dads huddle close to share warmth.

☐ 

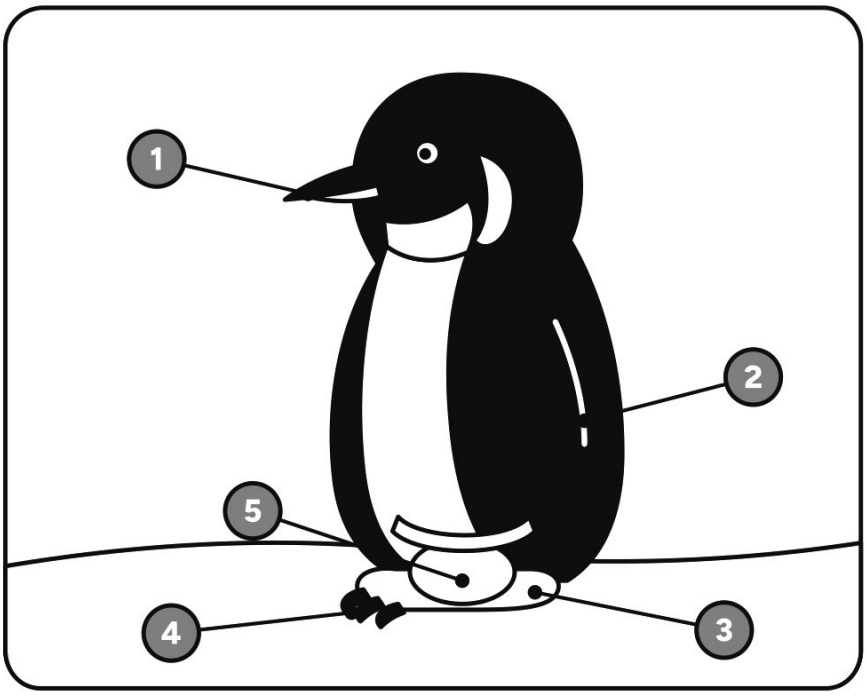
Back at the edge, he waits for his next turn.

☐ 

A dad on the windy edge shuffles along the side.

Built for the Cold

Label the parts that help an emperor penguin dad and his egg survive the Antarctic winter.



Word bank egg on dad's feet | feet with special fats | small bill | small flipper | strong claws

1 _____ 2 _____

3 _____ 4 _____

5 _____

North and South

Top row: the Arctic, up north. Bottom row: Antarctica, down south.



Arctic

Top of the world

Polar bears live in the Arctic, around the top of the world.



Moms only

Den time

Only mother polar bears that are expecting cubs spend the winter in dens.



Antarctica

Bottom of the world

Emperor penguins live in Antarctica, so they never meet polar bears in the wild.



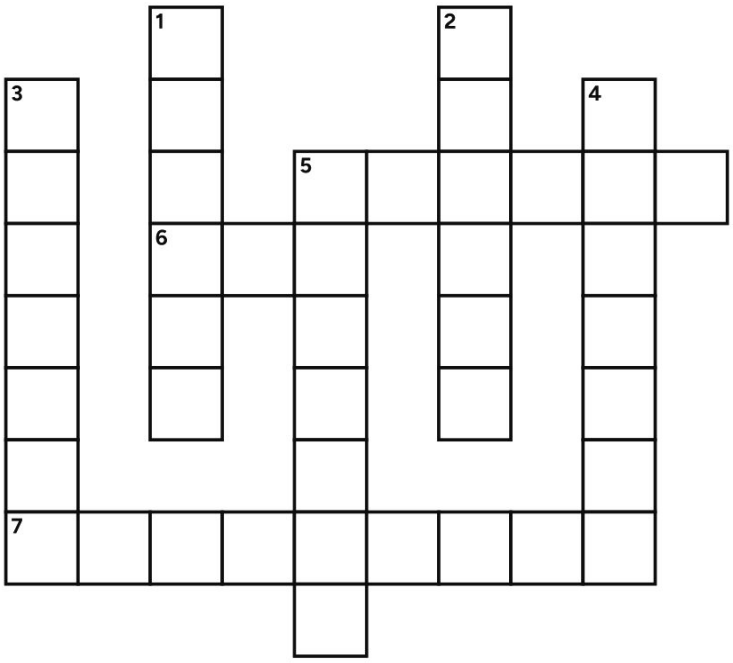
18 kinds

Biggest penguin

The emperor penguin is the largest of the 18 kinds of penguins.

Animal Survival Crossword

Use the clues to fill in the animal words. One letter goes in each box.



Across

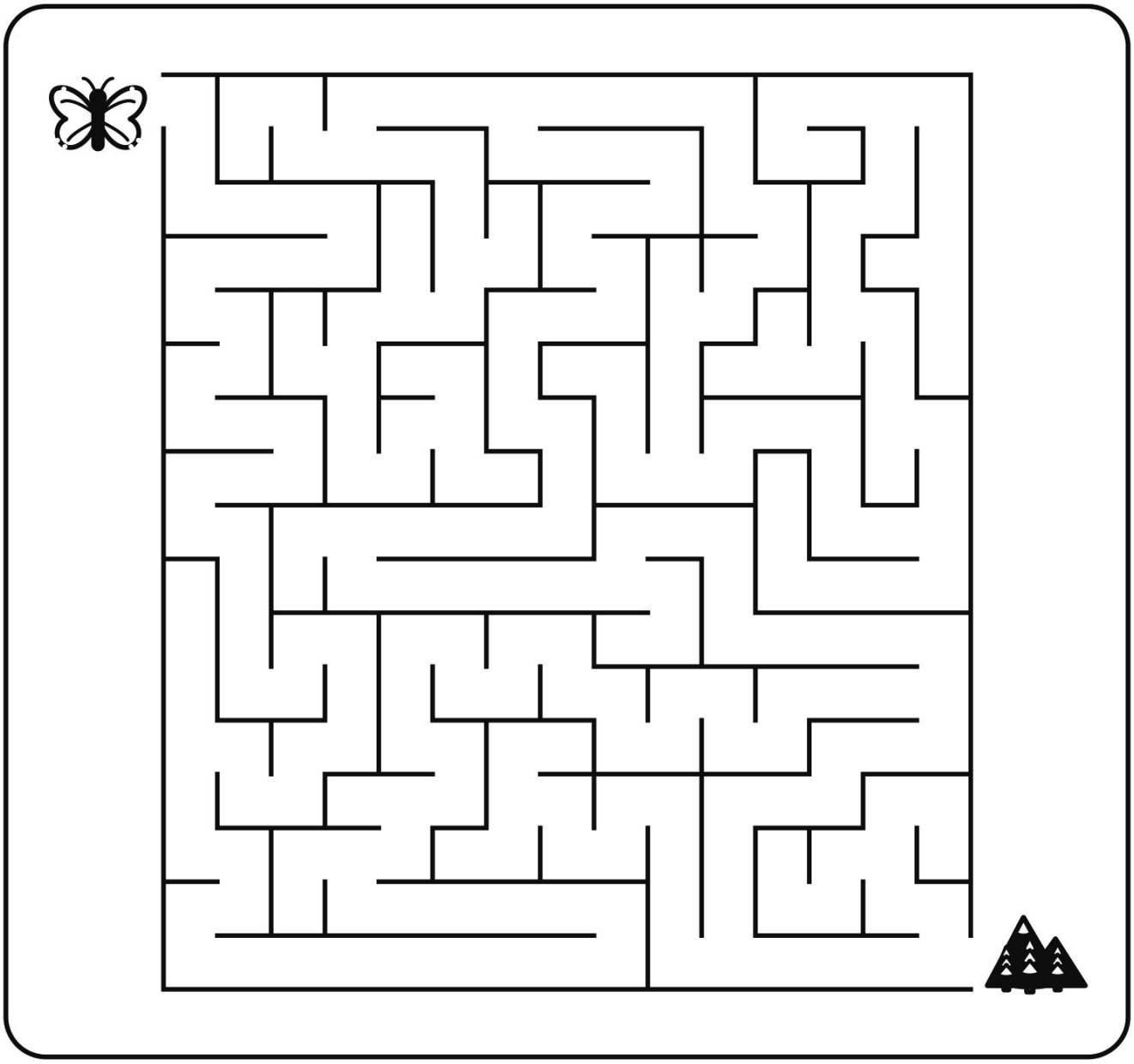
5. The icy top of the world, home of polar bears (6)
6. Where an expecting mother polar bear spends the winter (3)
7. To rest all winter with a slow heartbeat (9)

Down

1. Emperor penguins stand close in a ___ (6)
2. Reindeer eat it in winter; also called reindeer moss (6)
3. An orange butterfly that flies south for winter (7)
4. To travel far away for the winter (7)
5. Both male and female reindeer grow these (7)

The Monarch Journey

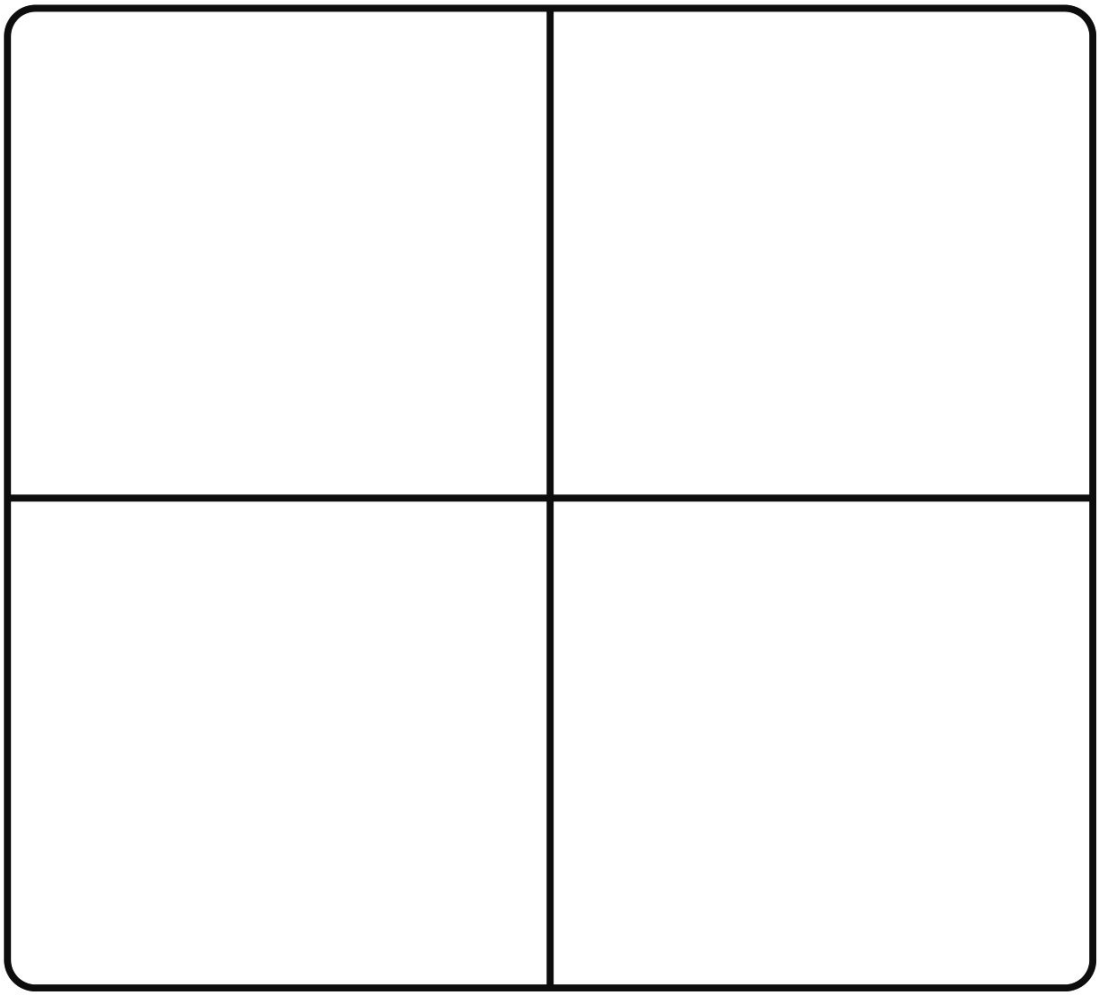
Some monarchs fly as far as 3,000 miles! Help this one reach its winter home in the mountain forests of Mexico.



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My Winter Science Goals

A new year is coming! Draw 4 things you want to discover, one in each window pane.



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