



GOES-R

Fun Activity Book

PUZZLES



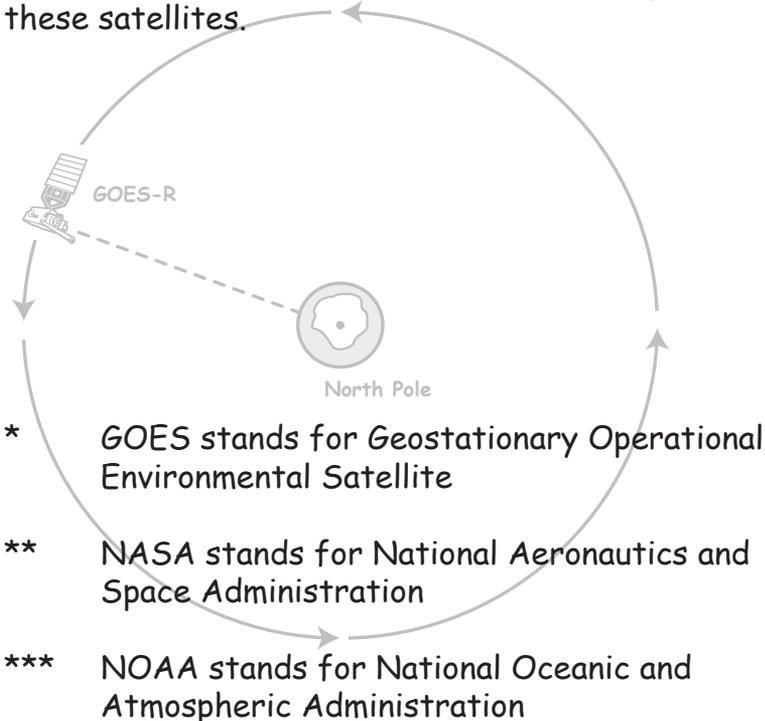
JOKES

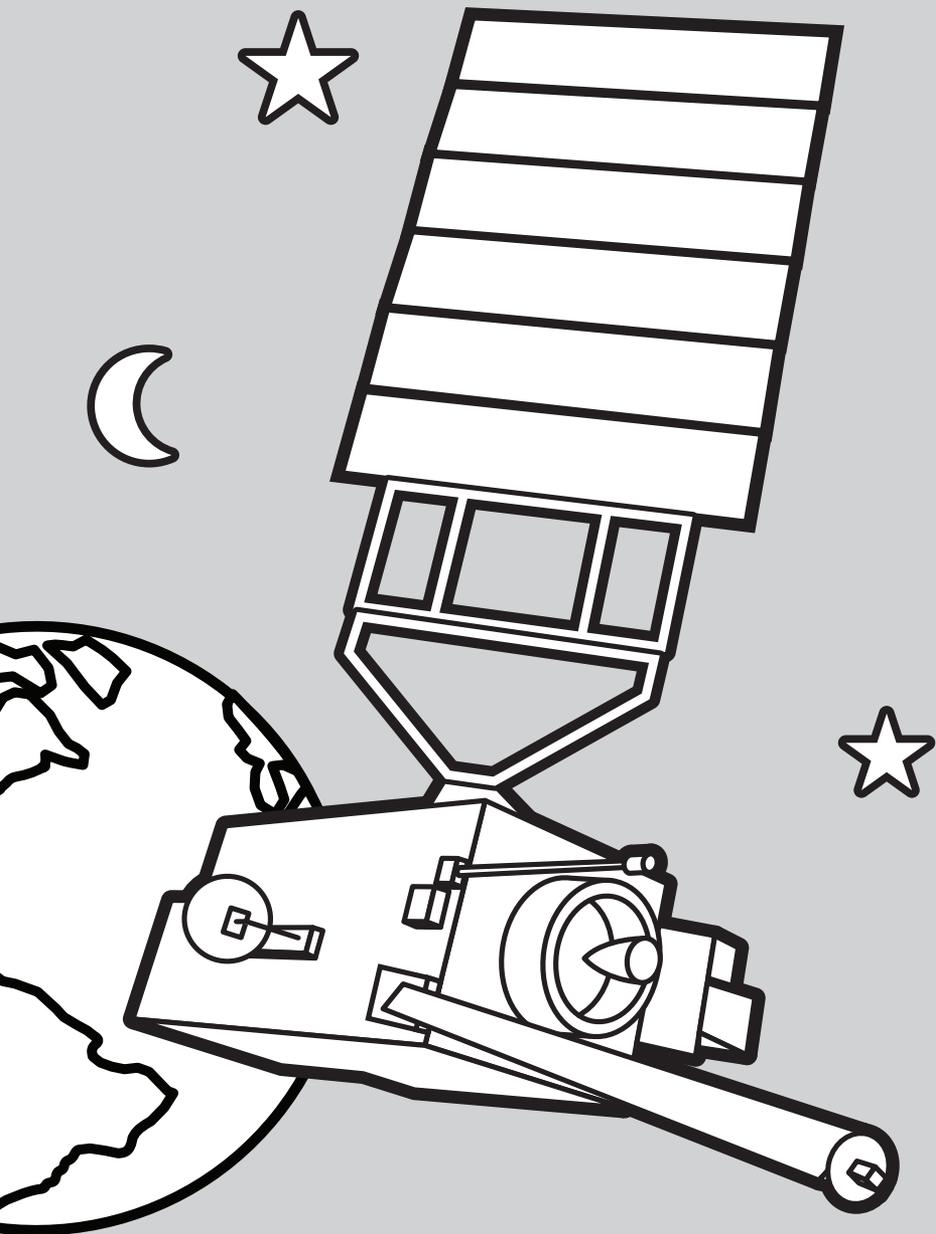
Meet GOES-R

Did you read about the GOES* weather satellites? Well, the new GOES-R satellites will be even more amazing. GOES-R is the name of some new weather satellites. Engineers are building them right now. The first one will be ready in 2016. Like the GOES, it will orbit Earth once per day and take very detailed pictures of Earth and its weather.

This new kind of satellite will do all the jobs the old GOES do, like take pictures of Earth's weather. GOES-R will also study the Sun, lightning, and Earth's magnetic field.

NASA** and NOAA*** build, launch, and operate these satellites.





The GOES-R satellites can see in infrared light — a kind of light our eyes cannot see.

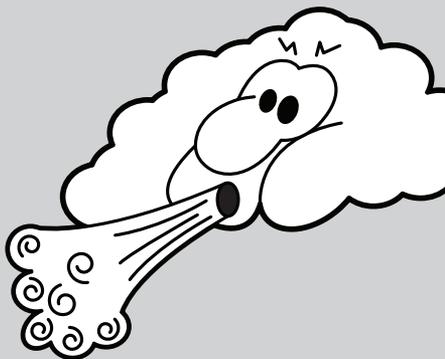
Time to Rhyme



Zig-zags of lightning
Flash in the sky.
They happen so fast,
In the blink of an _____.

The clouds look heavy,
The sky looks grey,
There will be no recess,
On this rainy _____.

Thunder is rumbling,
The air's wet and warm.
In a very short while
We'll be in for a _____.



GOES-R will see storms as they form and help predict what they will do.

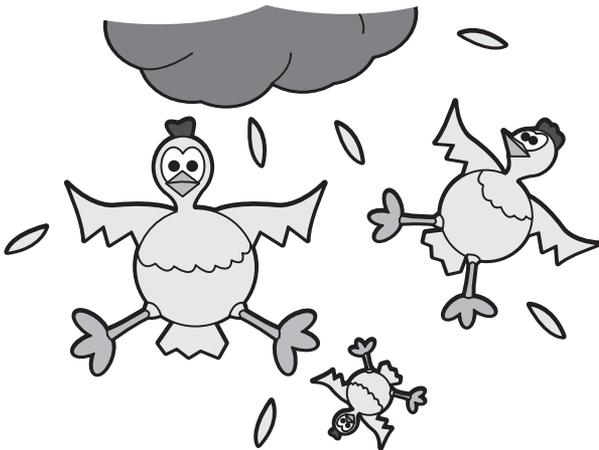
Riddles

Why don't they show lightning on TV?
It's too shocking.

Why do they say "It's raining cats and dogs?"
To keep you from stepping in a poodle.

When do they say "It's raining chickens and ducks?"
When there is really, really fowl weather.

Why doesn't a GOES weather satellite eat too much candy?
It doesn't want to spoil its launch time.



GOES-R can't eat any candy until after 2016, for that is its launch time.

Unscramble the Letters

Draw a line from the scrambled letters on the left to the word it spells on the right.

MROST

CLOUD

THO

STORM

OLDUC

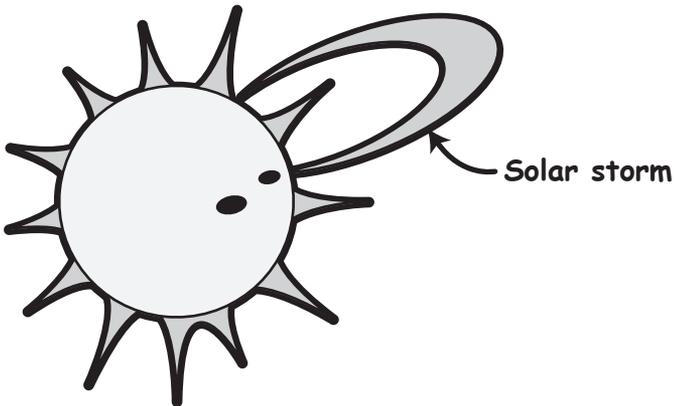
SPACE

LOCD

HOT

CEPAS

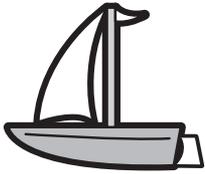
COLD



The Sun can have stormy weather too.

What is this?

Draw a line from the picture to the word that says what it is.



Star



Tree



Cloud



Boat



Lightning

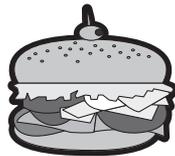
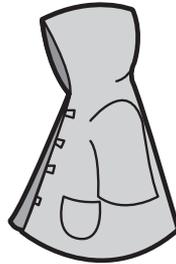
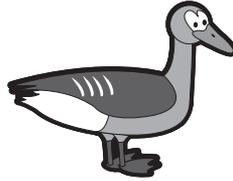
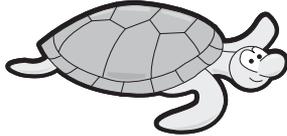
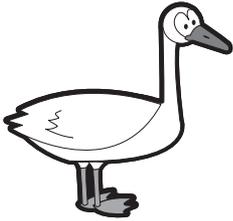


Moon

GOES-R will make lightning maps of the whole country.

What does not fit?

Circle the object that does not belong.



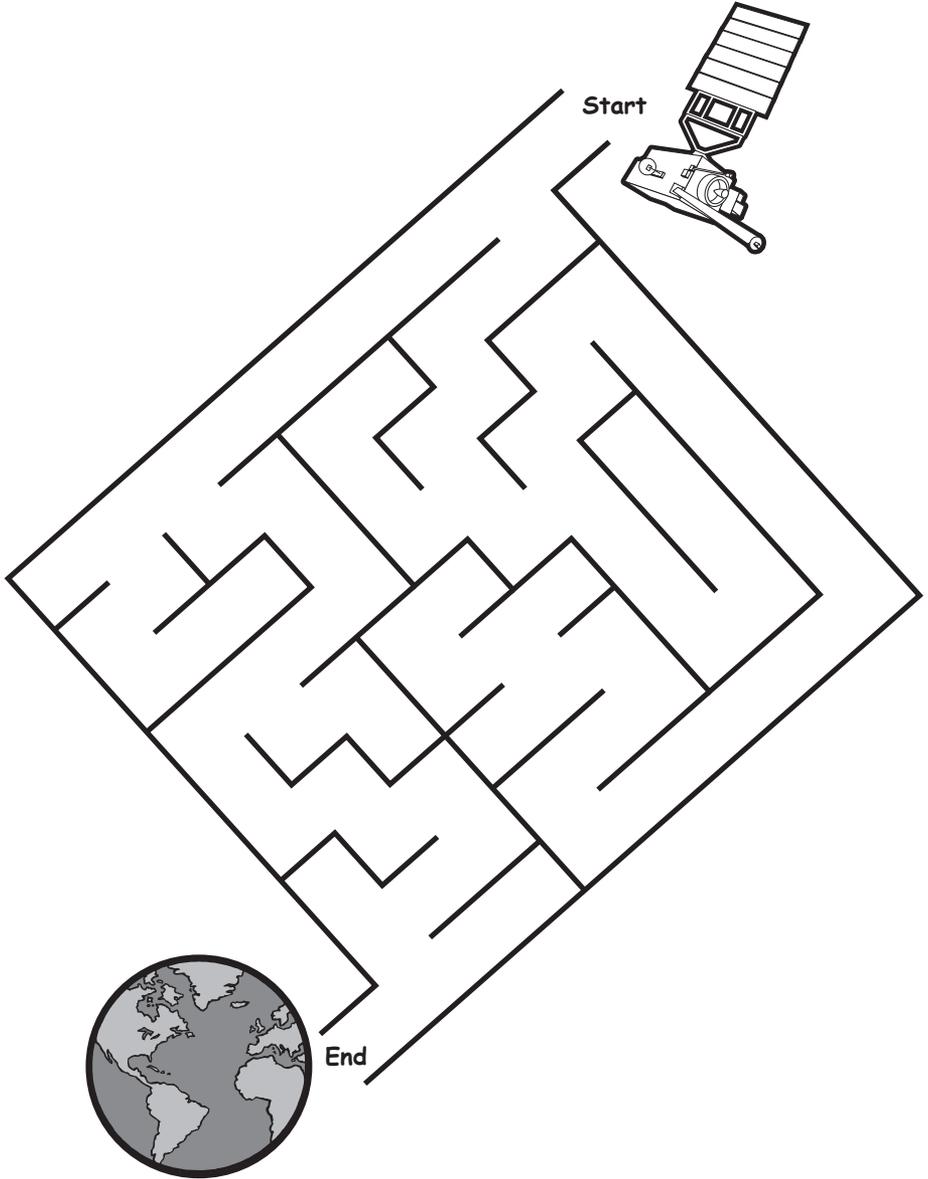
A raincoat will not protect Space Station astronauts from bad "space weather."

Color me



The Weather Wizard knows when rain is on the way...

Help GOES-R Find Earth

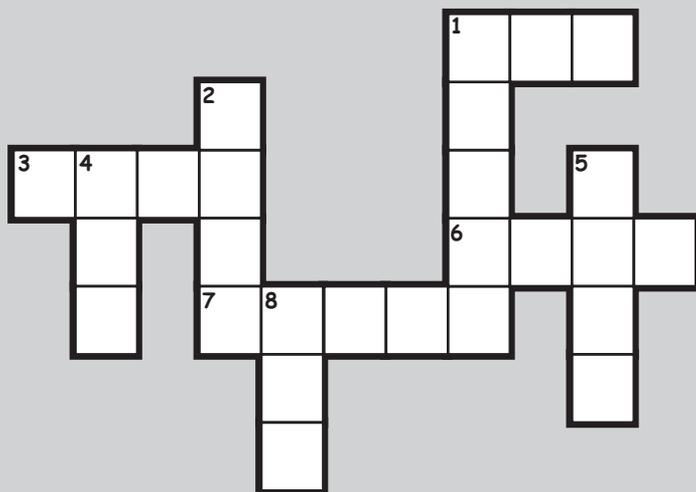


GOES-R will hover over one spot on Earth all the time.



Earth Words

Fill in the words that fit the clues.



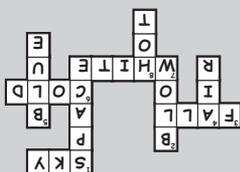
Across

- 1 After it rains, we may see a rainbow in the ____.
- 3 When trees lose their leaves and darkness comes sooner each day.
- 6 In winter, the weather is ____.
- 7 The color of snow.

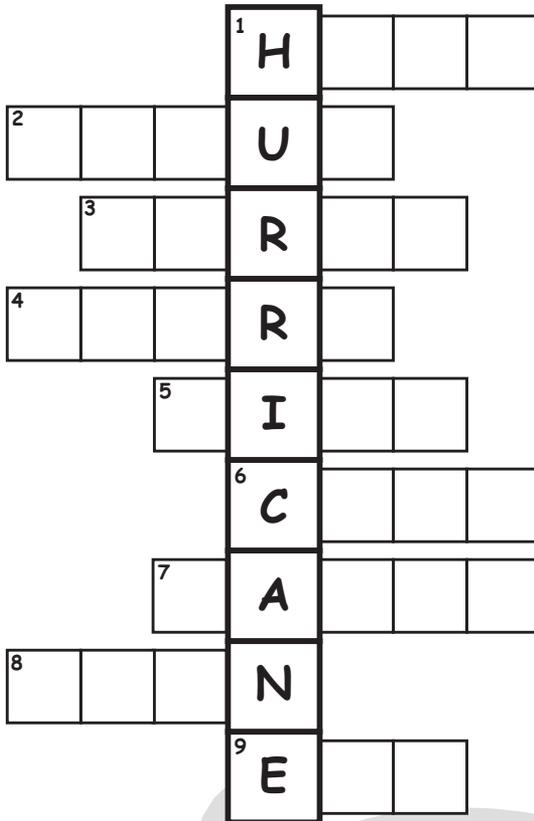
Down

- 1 The GOES-R satellite will watch Earth from ____.
- 2 This is what the wind does.
- 4 We breathe it in and out.
- 5 The color of the sky on a sunny day.
- 8 In summer, it gets very ____.

GOES-R will take sharp pictures of clouds and storms.



Crossing Words



CLUES:

1. H _ _ _ your house to make it warm inside.
2. That big, grey _ _ _ U _ in the sky is full of rain.
3. We live on planet _ _ R _ _ .
4. A hurricane is a very strong _ _ _ R _ .
5. In a hurricane, the _ I _ _ blows really hard.
6. During winter, temperatures at the North Pole are C _ _ _ .
7. Hurricanes cause big _ A _ _ _ on the ocean's surface.
8. The GOES see bad weather coming and can _ _ _ N us to prepare.
9. A calm "hole" in the center of a hurricane is called its E _ _ .

Hurricanes always form over the ocean.

Find the Hidden Words

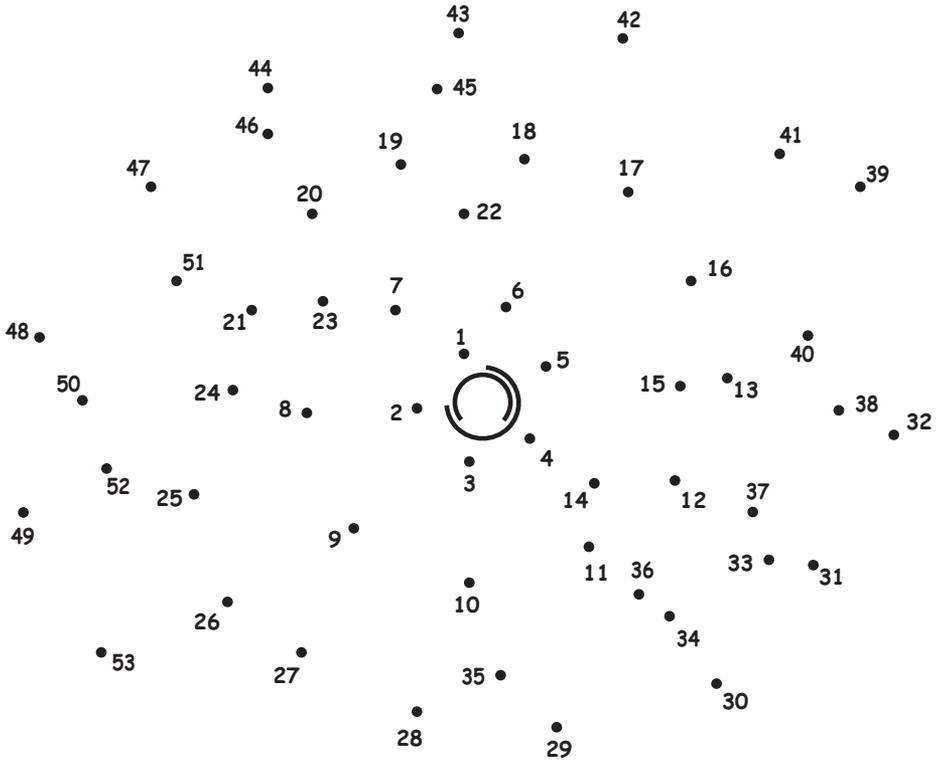
Find these words

EARTH
OCEAN
GOESR
STORM
SATELLITE



Warmer oceans make stronger storms.

Connect the Dots



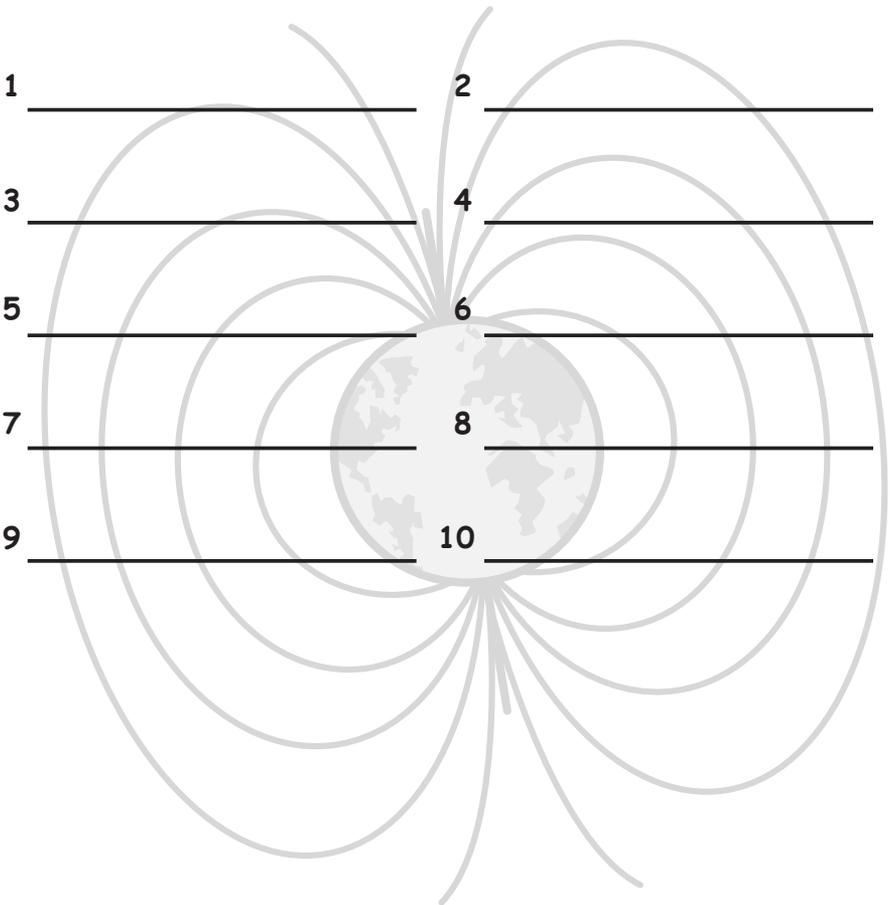
Hurricane

In a hurricane, clouds swirl around and around, faster and faster.

Words in Words

How many words can you make with the letters in

m a g n e t o s p h e r e



Earth has an invisible protective shield called the magnetosphere. It protects us from harmful particles and rays from the Sun.

What's the Difference?

Circle six differences between the two pictures



The new GOES-R satellites will make weather predictions even more accurate.

Find Rhymes

Find three rhymes for each of the words.

GOES

RAIN

SPACE

SUN

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



The United States has the wildest weather of any country on Earth!



GOES

Fun Activity Book



Meet GOES

GOES* is a weather satellite. GOES is out in space, orbiting Earth. That means it travels around and around Earth. It makes one trip around Earth each and every day. GOES looks down on the same side of Earth all the time. GOES and Earth do a kind of space dance together.

There are actually two GOES in orbit. One watches the West Coast of the United States. The other watches the East Coast.

The GOES take pictures all the time. They see storms forming over land and ocean. They take the pictures of clouds and hurricanes that you see on TV! The GOES help weather forecasters do their jobs.

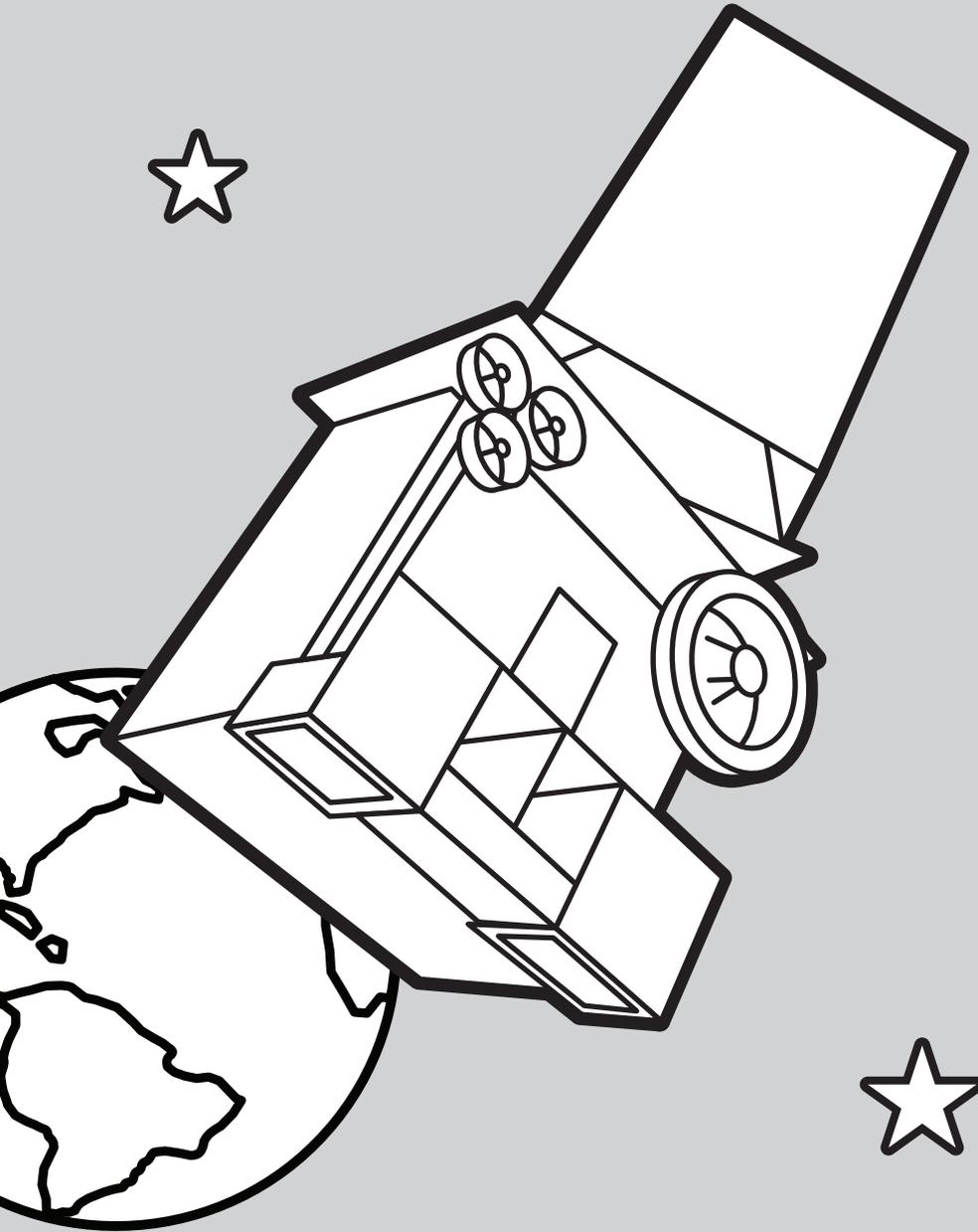
NASA** builds and launches these satellites.
NOAA*** pays for and operates them.



* GOES stands for Geostationary Operational Environmental Satellite

** NASA stands for National Aeronautics and Space Administration

*** NOAA stands for National Oceanic and Atmospheric Administration



GOES is like a big truck in space, carrying its special instruments to observe Earth.

Time to Rhyme



Silent and soft,
The snowflakes drift.
They leave the world
Wrapped up like a _ _ _ _ .



Monday it's all rainy.
Tuesday brings the sun.
Wednesday is a snow day.
Weather's lots of _ _ _ !

GOES helps us know what kind of weather is on the way for Thursday, Friday, and beyond.

Riddles

Why don't older people like jokes about snow?

It's just a lot of skid stuff.

Why can't you rely on snow during the winter holidays?

Because it's so flaky!

Why did the baker work outside on cold nights?

So he wouldn't have to frost the cakes.

What did the hurricane say to the GOES weather satellite?

"I have my eye on you."



It's actually the GOES that has its eye on the hurricane!

Unscramble the Letters

Draw a line from the scrambled letters on the left to the word it spells on the right.

NIWD

AIR

ANIR

SUN

YSK

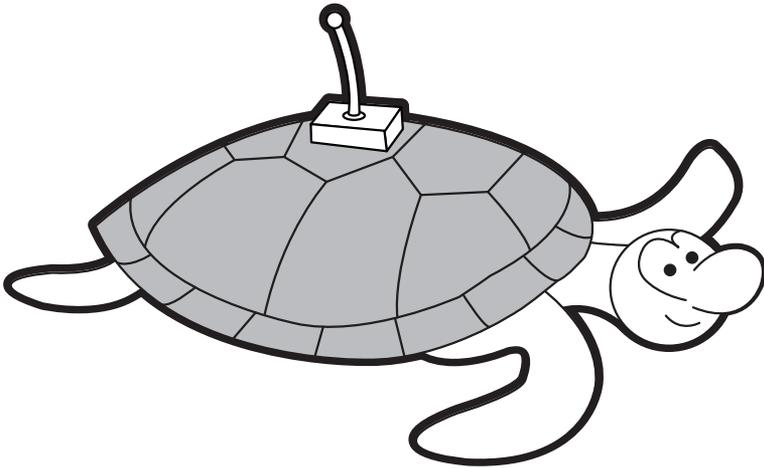
SKY

SNU

WIND

IRA

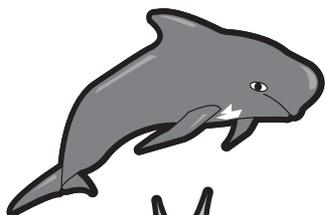
RAIN



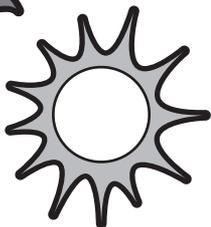
Satellites track some endangered animals, like this sea turtle.

What is this?

Draw a line from the picture to the word that says what it is.



Sun



Earth



Clock



Whale

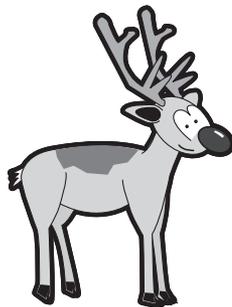
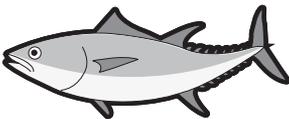
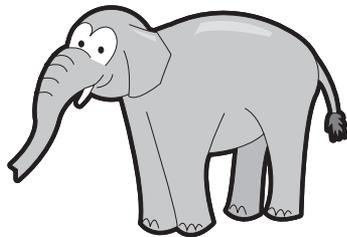
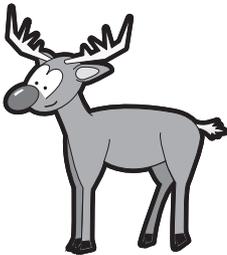
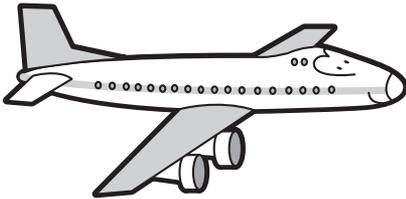
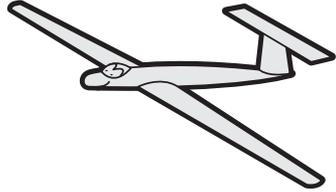
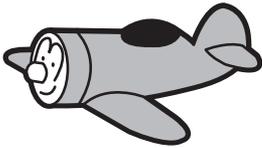


Duck

The National Weather Service tells everyone what kind of weather is on the way.

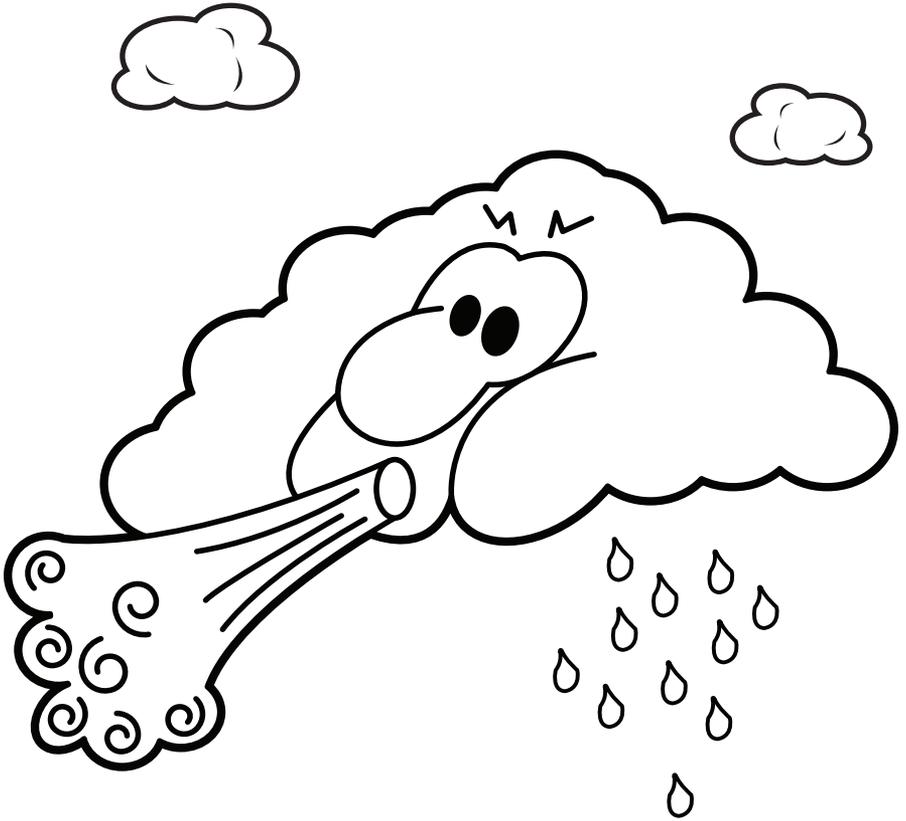
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Circle the object that does not belong.



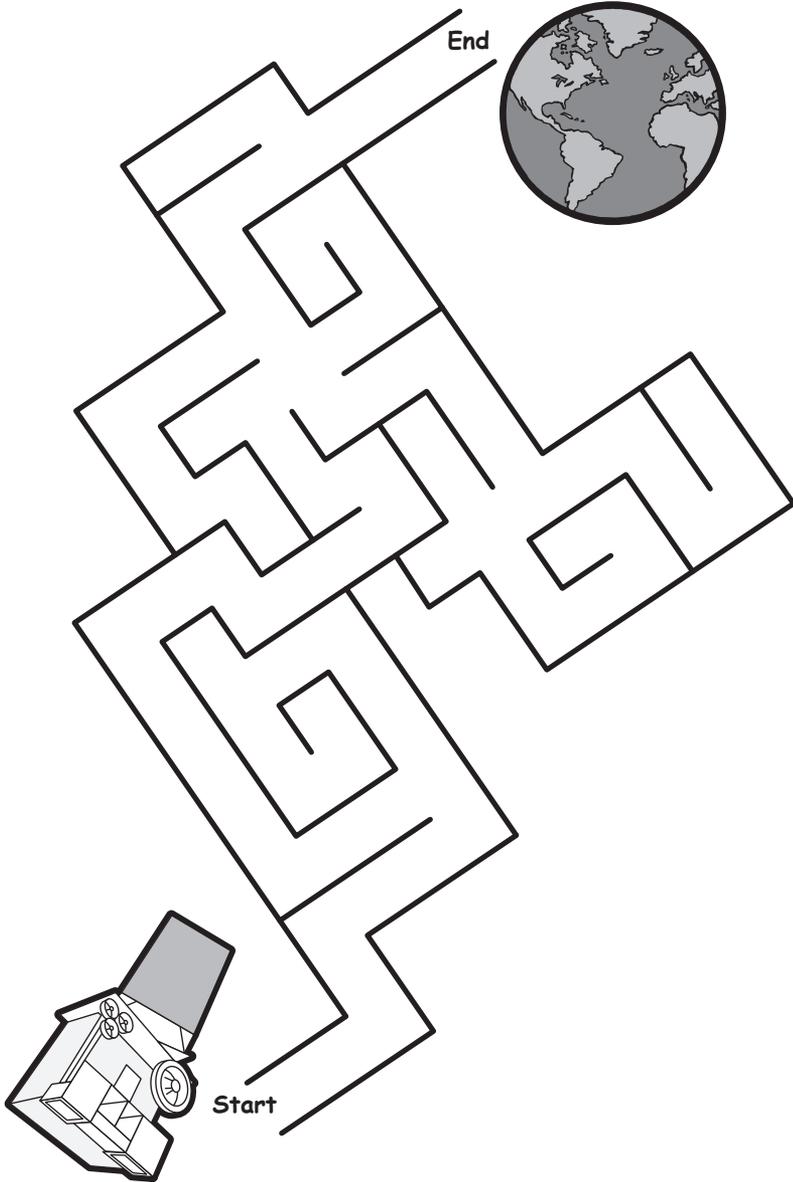
Satellites watch the weather over the whole Earth.

Color me



This big cloud is blowing up a storm...

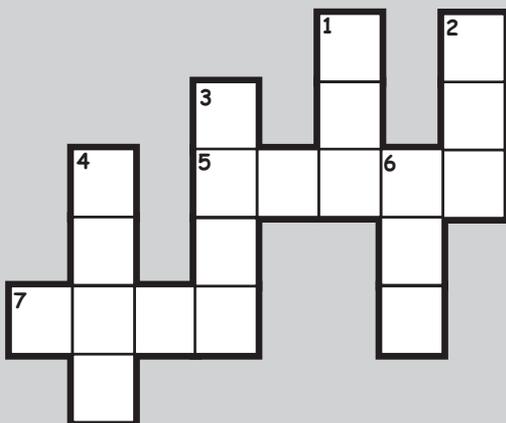
Help GOES Find Earth



GOES and Earth are locked in a dance together.

Earth Words

Fill in the words that fit the clues.



Across



- 5 Water over most of Earth.
7 Falls from the sky in wet drops.

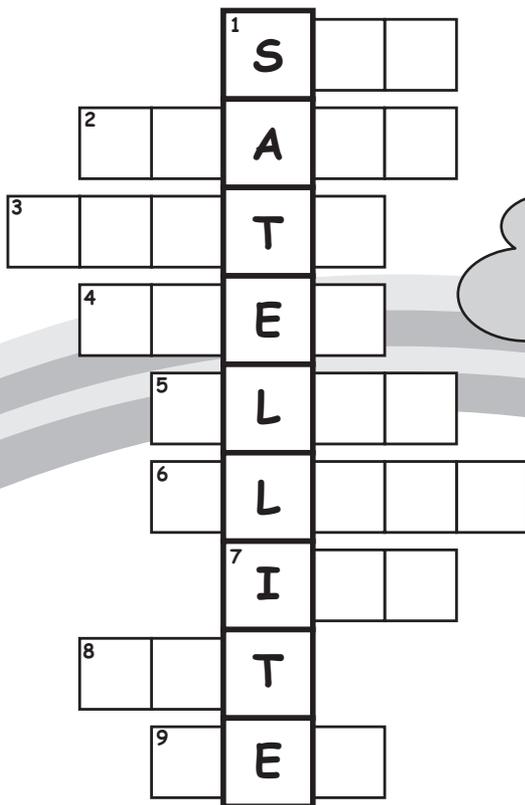
Down

- 1 Frozen water.
2 Our own star.
3 Bright and white and shines at night.
4 Wear this if it is cold outside.
6 What we breathe.

Satellites help us understand Earth better.



Crossing Words



CLUES:

- 1 After it rains, we may see a rainbow in the S _ _ .
- 2 The GOES satellite watches Earth from _ _ A _ _ .
- 3 The color of snow is _ _ _ T _ .
- 4 When it's hot, sit under a shady _ _ _ E .
- 5 The color of the sky on a sunny day is _ L _ _ .
- 6 The fluffy, white _ L _ _ _ looks like cotton.
- 7 When water freezes, it makes I _ _ .
- 8 In summer, the weather is _ _ T .
- 9 I was out in the rain, so my hair is _ E _ .

Satellites study weather, the oceans,
the land, and the air.

Find the Hidden Words

Find these words

HEAT
WIND
SMOG
HUMID
CLIMATE



The atmosphere is a very thin blanket around Earth, like the skin of an apple.

Connect the Dots



If you could throw a ball hard enough and high enough, it would go into orbit!

Words in Words

How many words can you make with the letters in

weather satellite

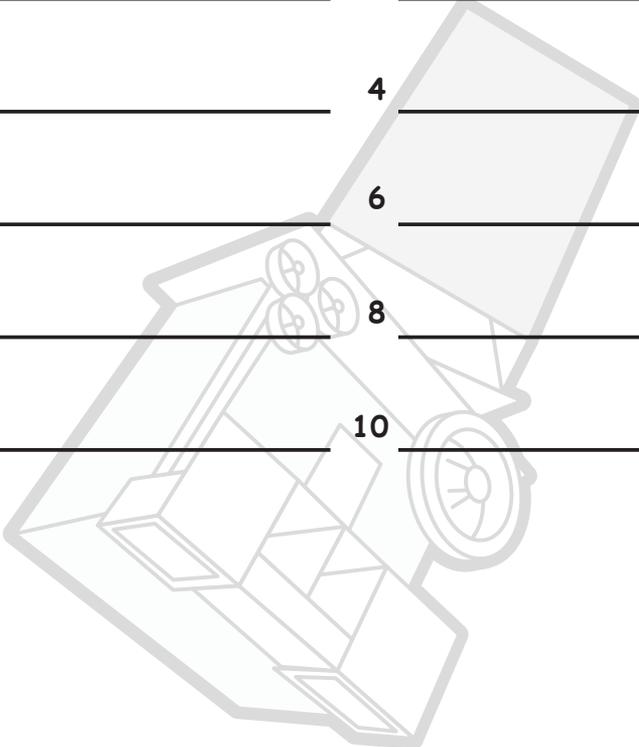
1 _____ 2 _____

3 _____ 4 _____

5 _____ 6 _____

7 _____ 8 _____

9 _____ 10 _____



The GOES can see the size of a hurricane and where it is going.

What GOES together?

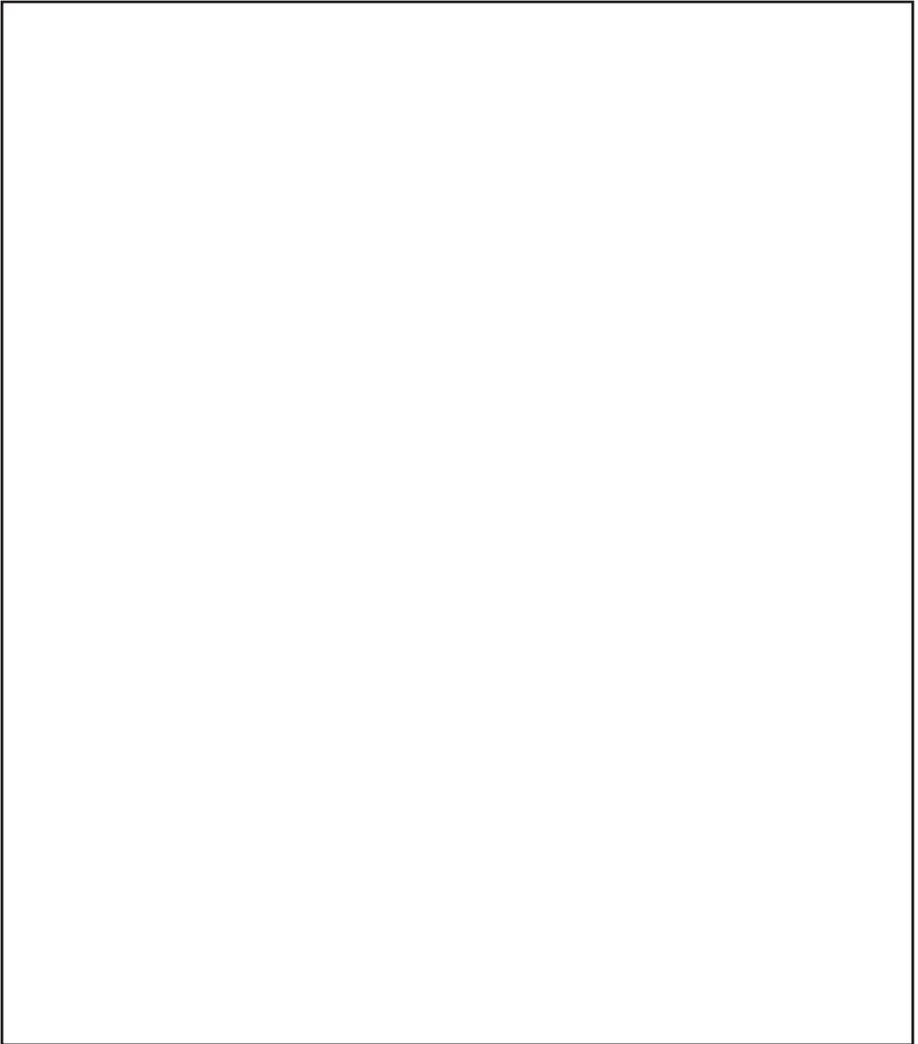
Draw a line from one thing to the thing that goes with it.



The GOES can sense temperatures on Earth's surface—from way up in space!

Answers: Cloud-Lightning, Snowman-Sled, Moon-Earth

Draw Your Favorite Weather



Weather is an adventure!