

## Sunny Question

Why are sunny winter days COLD, while sunny summer days are HOT? *Kid Scoop's* winter expert Dr. I. Cicle explains it all!

As you can see, it's a sunny winter day here and ...

YEAH! It's a sunny day! Let's hit the waves, Bro!

Uh, Dude, there's something really wrong with this sand. It's, like, frozen!

That's because it isn't sand. It's snow!

SNOW? But it's, like, sunny today. So why isn't the snow, like, melted?

I'm glad you asked! Let's pretend this snowball is Earth.

Earth is, like, WAY bigger, Dude!

The Earth tilts on its axis as it travels around the sun. In the winter, if the part of the Earth where you live is tilted away from the sun, it gets indirect sunlight.

Indirect sunlight doesn't warm up the Earth as much as the direct sunlight we get in the summer.

That is so cool! Now, why is this sand so COLD?

Standards Link: Earth Science: Students know that weather can be observed, measured and described; changes in weather and seasons are affected by the Earth's position.



### Experiment Tells All

Try this experiment to understand the difference between indirect and direct sunlight.

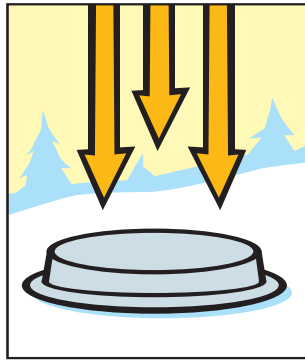
Keep track of your work on a separate sheet of paper like the Scientist's Notebook.

#### Stuff you need:

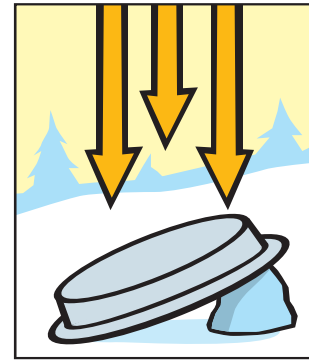
- 2 metal pie tins or flat pans
- a sunny winter day
- watch or clock
- a rock

#### What to do:

1. Lay one pan flat on the ground in the direct sunlight. (Fig. 1)
2. Tilt the other pan on its side. Lean it against a rock or a shoe. This pan is being hit with indirect sunlight. (Fig. 2)
3. Wait three minutes.
4. Which pan is warmer?



(Fig. 1) direct sunlight



(Fig. 2) indirect sunlight

| SCIENTIST'S NOTEBOOK                                                           |                                                                                                                                                          |                                                                                                                                                |                                                                       |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Question                                                                       | Hypothesis                                                                                                                                               | Observation                                                                                                                                    | Conclusion                                                            |
| Which pan do you think will feel warmer after three minutes in the winter sun? | What do you think the answer to the question is?<br><input type="checkbox"/> pan in direct sunlight<br><input type="checkbox"/> pan in indirect sunlight | Which pan was warmer in three minutes?<br><input type="checkbox"/> pan in direct sunlight<br><input type="checkbox"/> pan in indirect sunlight | Was your hypothesis correct? What did you learn from this experiment? |

**Extra! Extra!**

**Without the Sun ...**

Without the sun we wouldn't have newspapers because newsprint is made from trees and trees need the sun to grow. Look through the newspaper for other things that need the sun to exist.

Standards Link: Language Arts/Research: Use the newspaper to locate information.

### Sun Spot Mystery

The sun is covered with spots! Use the spots to solve the mystery questions.

How far is the sun from the Earth?

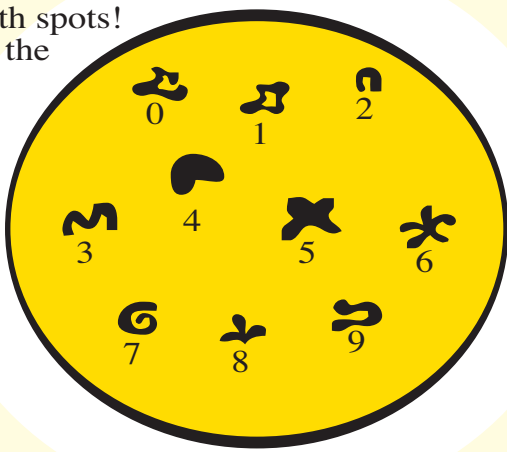
**SM** million miles (149.6 million km)

How long does it take the sun to make one complete rotation?

**XX** Earth days

What is the diameter of the sun?

**XXX** miles. (1.4 million km)



**WARNING!** Never look directly at the sun as this can damage your eyesight!

Standards Link: Earth Science: Students know about the sun, planets and stars.

### Kid Scoop Word Search

- SUNLIGHT
- EXPERIMENT
- SUMMER
- MILES
- PAPER
- DIAMETER
- HYPOTHESIS
- METAL
- WINTER
- SAND
- SNOWBALL
- PAN
- AXIS
- SHOE

Find the words by looking up, down, backwards, forwards, sideways and diagonally.

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| S | I | S | E | H | T | O | P | Y | H |
| D | A | L | L | A | B | W | O | N | S |
| I | W | N | I | R | E | M | M | U | S |
| A | S | S | D | N | X | T | N | E | R |
| M | I | M | E | T | A | L | R | S | E |
| E | X | P | E | R | I | M | E | N | T |
| T | A | R | S | G | T | L | P | U | N |
| E | E | O | H | S | I | N | A | S | I |
| R | H | T | I | M | N | A | P | N | W |

Standards Link: Letter sequencing. Recognized identical words. Skim and scan reading. Recall spelling patterns.

### SMART FUN AT HOME

One important thing to understand when you read is **cause and effect**.

For example, in the legend of Groundhog Day, when the groundhog sees his shadow, he goes back in his burrow. In this case, the **effect** is that the groundhog goes back in his burrow. That is what happens. What **causes** him to go back in his burrow? Getting frightened by his shadow.



### Try It!

1. With a parent or learning buddy at home, select an article from today's newspaper. Read the headline. Discuss what you think caused the news reported in the headline.

2. The headline usually tells what happened. This is called an **effect**. Read aloud to your learning buddy the first paragraph of the article. Does this tell you the **cause**? Read the rest of the article aloud. After each paragraph, stop and discuss what you have learned about what caused the news reported in the headline.

Complete the following:

HEADLINE (effect):

---



---



---

CAUSE(s):

---



---



---

NAME:

---

NAME OF LEARNING BUDDY:

---

Standards Link: Reading Comprehension: Distinguish between cause and effect in text.

### Kid Scoop VOCABULARY BUILDERS

This week's word: **HYPOTHESIS**

The noun **hypothesis** means a suggestion or guess not proved but the basis for further study.

The class was asked to test their **hypothesis**.

Try to use the word **hypothesis** in a sentence today when talking with your friends and family.

### FROM THE Kid Scoop LESSON LIBRARY

#### Who cares about the weather?

Why is the weather report important to different people? Why is it important to a farmer, an astronaut or a fireman? Find an article or picture in the newspaper of a person who cares about the weather. Tell why this person cares.

Standards Link: Reading Comprehension: Understand the main idea and supporting details in expository text.



## What kind of caps do snowmen wear?

ANSWER: Ice caps.

### Write On!

## Winter Poem

Write a poem about winter or winter weather.

SPONSORED BY

