

## Do your test.

- 3.** Follow your steps.

## Collect and record data.

- 4.** Fill in the chart.


## Tell your conclusion.

- 5.** How many suction cups did you need to open the jar?



- 6. Communicate** How did you use the suction cups to open the jar?

# Measurements

## Metric and Customary Measurements

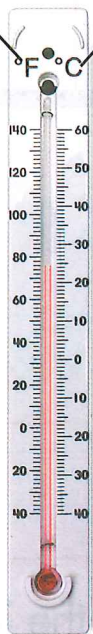
Science uses the metric system to measure things.

Metric measurement is used around the world.

Here is how different metric measurements compare to customary measurements.

Fahrenheit

Celsius



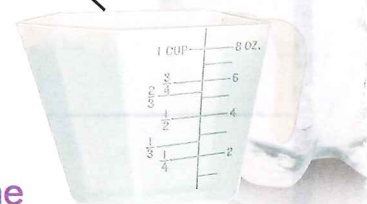
### Temperature

Water freezes at  $0^{\circ}\text{C}$ , or  $32^{\circ}\text{F}$ .

Water boils at  $100^{\circ}\text{C}$ , or  $212^{\circ}\text{F}$ .

1 liter

1 cup



### Volume

One liter is greater than 4 cups.

1 kilogram

1 pound



### Mass

One kilogram is greater than 2 pounds.

1 meter



1 foot



### Length and Distance

One meter is longer than 3 feet.

# Glossary

The glossary uses letters and signs to show how words are pronounced.

The mark / is placed after a syllable with a primary or heavy accent. The mark ˈ is placed after a syllable with a secondary or lighter accent.

To hear these vocabulary words and definitions, go online to access the digital glossary.

## Pronunciation Key

a in hat	ō in open	sh in she
ā in age	ó in all	th in thin
â in care	ô in order	ʒ in then
ä in far	oi in oil	zh in measure
e in let	ou in out	ə = a in about
ē in equal	u in cup	ə = e in taken
èr in term	ù in put	ə = i in pencil
i in it	ü in put	ə = o in lemon
ī in ice	ch in child	ə = u in circus
o in hot	ng in long	

## A

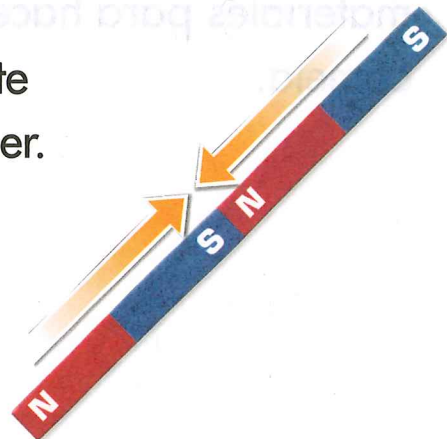
**adapt** (ə dapt/) To change. Animals are **adapted** to their environment.

**adaptar** Cambiar. Los animales se **adaptan** a su medio ambiente.



**attract** (ə trakt/) To pull toward. The opposite poles of two magnets will **attract** one another.

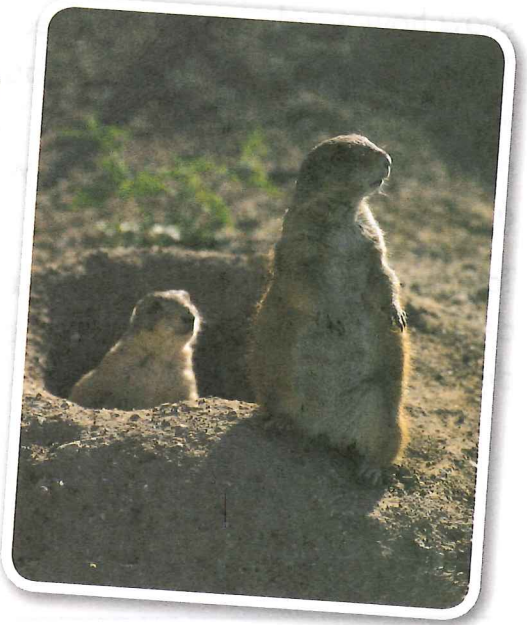
**atraer** Jalar hacia sí. Los polos opuestos de dos imanes **se atraen** uno al otro.



**B**

**burrows** (bér' ōz) Tunnels or holes that animals dig for shelter. Prairie dogs dig **burrows**.

**madriguera** Túnel u hoyo que los animales excavan para refugiarse. Los perros de pradera cavan **madrigueras**.

**C**

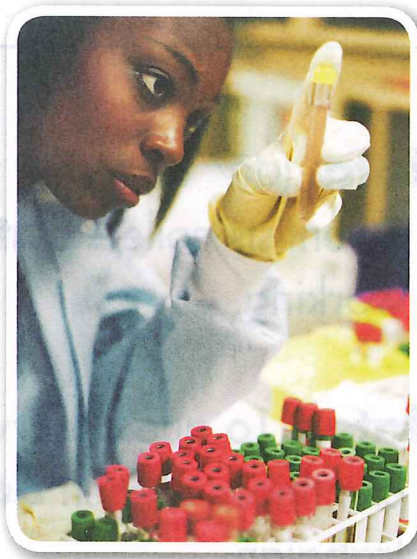
**combine** (kəm bīn') To put two or more things together. I **combine** materials to make a kite.

**combinar** Unir dos o más cosas. Yo **combino** materiales para hacer una cometa.



**conclusion** (kən klü' zhən) What you decide after you think about all you know. Scientists repeat their tests before drawing a **conclusion**.

**conclusión** Lo que decides después de pensar en lo que sabes. Los científicos repiten sus pruebas antes de sacar una **conclusión**.



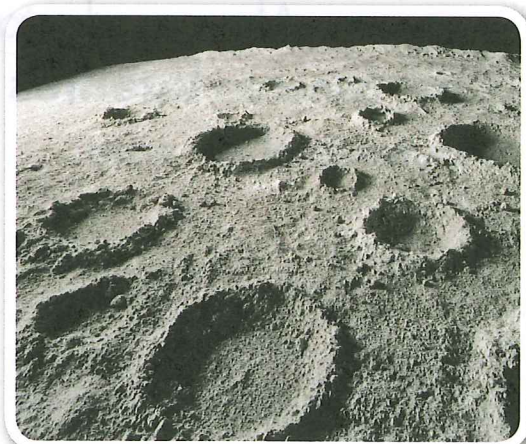
**constellation** (kon' stə lā' shən) A group of stars that forms a picture. I like to search the night sky for **constellations**.

**constelación** Grupo de estrellas que forman una figura. Por la noche me gusta buscar **constelaciones** en el cielo.



**crater** (krā' tər) A hole in the ground shaped like a bowl. There are many **craters** on the surface of the moon.

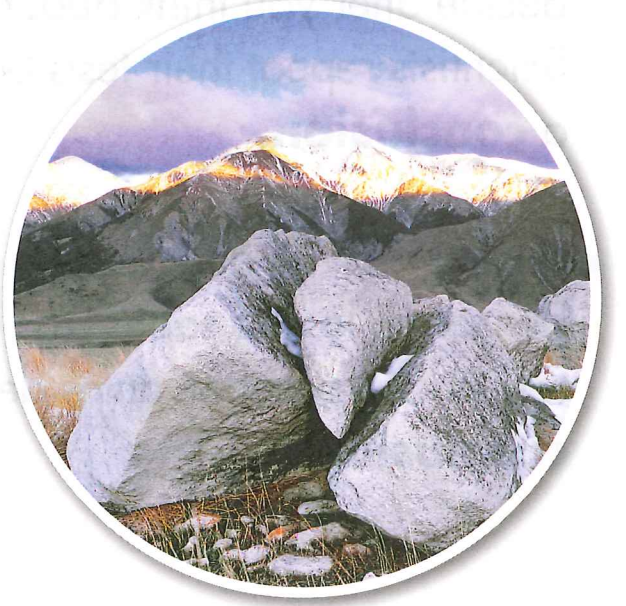
**cráter** Hueco con forma de tazón que se encuentra en la tierra. Hay muchos **cráteres** en la superficie de la Luna.



**D**

**data** (dā' tə) What you observe. Scientists collect **data** while working.

**datos** Lo que observas. Los científicos reúnen **datos** cuando trabajan.



**dormant** (dôr' mən) Not active; at rest. Some plants are **dormant** in winter.

**latente** Inactivo; en estado de descanso o reposo. Algunas plantas permanecen **latentes** durante el invierno.



**E**

**electricity** (i lek' tris' ə tē) A kind of energy that can flow through wires and make light and heat. A computer uses **electricity** to work.



**electricidad** Tipo de energía que puede fluir por cables y generar luz y calor. Una computadora funciona con **electricidad**.

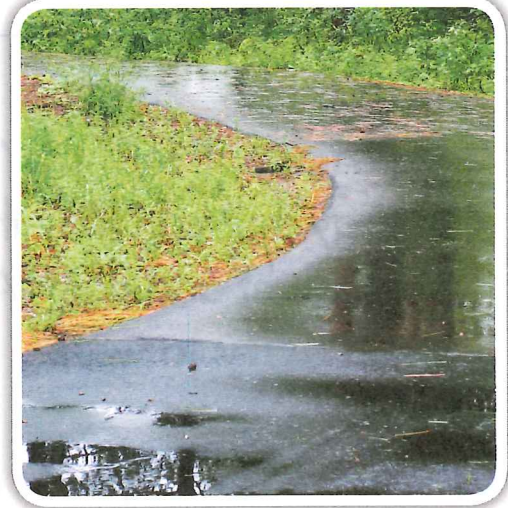
**energy** (en' ər jē) The ability to do work or cause change. What living things need to live and grow. A fan uses **energy** to move air around a home.



**energía** Capacidad de hacer trabajo o causar cambio. Lo que usan los seres vivos para vivir y crecer. Un ventilador usa **energía** para mover el aire dentro de una casa.

**evaporate** (i vap' ə rāt) To change from a liquid to a gas. Water **evaporates** when it changes into water vapor.

**evaporarse** Cambiar de líquido a gas. El agua **se evapora** cuando se convierte en vapor de agua.



**F**

**food chain** (fūd chān) A model that shows how energy passes from one living thing to another. Plants are part of **food chains**.

**cadena alimenticia**

Modelo que muestra cómo se transmite la energía de un ser vivo a otro. Las plantas forman parte de **cadena alimenticias**.





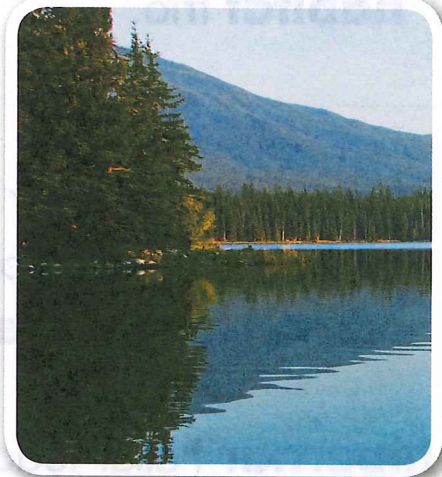
**force** (fôrs) A push or pull that makes something move. A **force** is used to throw and catch the ball.

**fuerza** Empujón o jalón que hace que algo se mueva. Se usa **fuerza** para tirar y atrapar la pelota.



**fresh water** (fresh' wò' tər) Water that is not salty. Most lakes are **fresh water**.

**agua dulce** Agua que no es salada. La mayoría de los lagos son de **agua dulce**.



G

**gas** (gas) Matter that does not have its own size or shape. Bubbles are filled with **gas**.

**gas** Materia que no tiene tamaño ni forma propios. Las burbujas están llenas de **gas**.



## H

**habitat** (hab' ə tat) A place where a plant or animal lives. An arctic fox lives in a cold **habitat**.

**hábitat** Un lugar donde vive una planta o un animal. Un zorro ártico vive en un **hábitat** frío.



**hibernate** (hī' bər nāt) To spend all winter sleeping or resting. Some animals **hibernate**.

**hibernar** Pasar todo el invierno durmiendo o descansando. Algunos animales **hibernan**.



**hypothesis** (hī poth' ə sis) A possible answer to a question. Scientists decide if a **hypothesis** is supported or not supported.

**hipótesis** Respuesta posible a una pregunta. Los científicos deciden si una **hipótesis** tiene base firme o no.

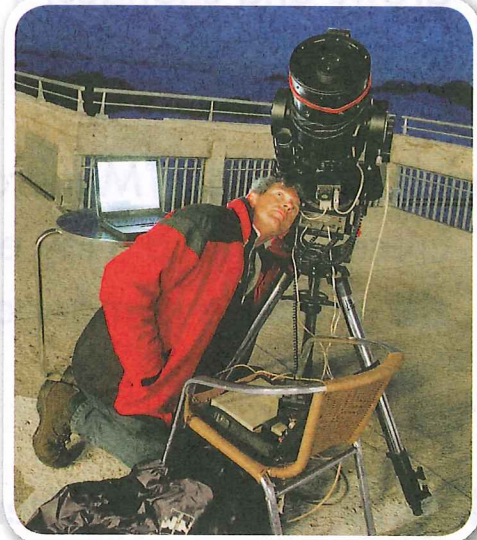


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**I**

**inquiry** (in kwī' rē) Asking questions and looking for answers. Scientists use **inquiry** to learn.

**indagación** Hacer preguntas y buscar respuestas. Los científicos hacen **indagaciones** para aprender.



---

**L**

**larva** (lär' və) A young insect. A butterfly **larva** is called a caterpillar.

**larva** Un insecto joven. La **larva** de una mariposa se llama oruga.



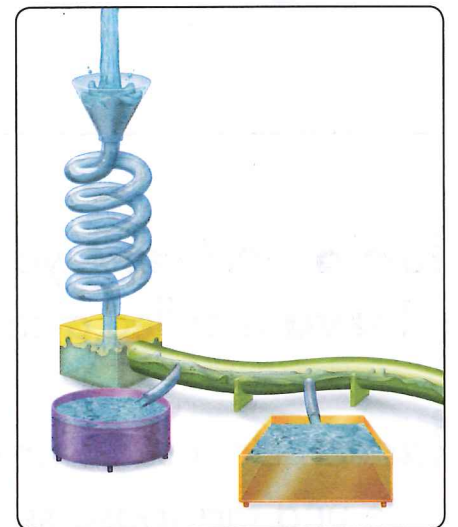
**life cycle** (līf sī' kəl) The way a living thing grows and changes. We studied the **life cycle** of a butterfly.

**ciclo de vida** Manera en que un ser vivo crece y cambia. Hoy estudiamos el **ciclo de vida** de la mariposa.



**liquid** (lik' wīd) Matter that has its own volume but takes the shape of its container. The **liquid** changes shape in the tubes.

**líquido** Materia que tiene su propio volumen pero que toma la forma del recipiente que la contiene. El **líquido** cambia de forma dentro de los tubos.



**M**

**matter** (mat' ər) Anything that takes up space and has mass. Everything is made of **matter**.

**materia** Todo lo que ocupa espacio y tiene masa. Todo está hecho de **materia**.



**migrate** (mī' grāt) To move from one place to another in a regular pattern. Many birds **migrate** in the winter.



**migrar** Moverse de un lugar a otro en un patrón regular. Muchos pájaros **migran** durante el invierno.

**mineral** (min' ə rəl) A nonliving material that comes from Earth. Quartz is a **mineral**.



**mineral** Material inerte que viene de la Tierra. El cuarzo es un **mineral**.

**motion** (mō' shən) The act of moving. A merry-go-round moves in a circular **motion**.

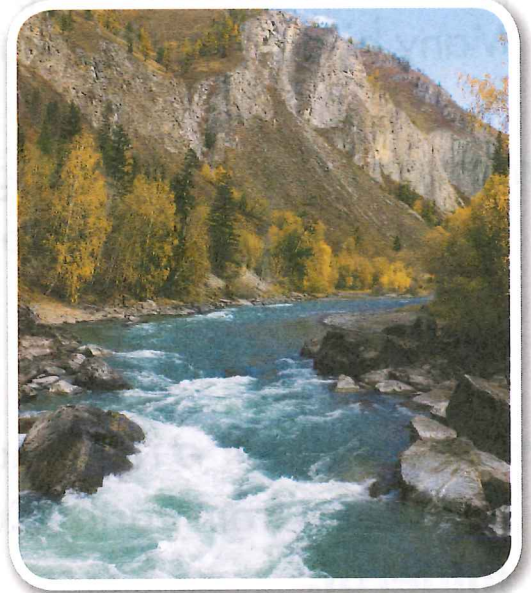


**movimiento** El acto de moverse. Los carruseles siguen un **movimiento** circular.

# N

**natural resource** (nach' ə r ə l rē' sōrs) A useful material that comes from Earth. Water is a **natural resource**.

**recurso natural** Un material útil que proviene de la Tierra. El agua es un **recurso natural**.



**nutrient** (nü' trē ənt) A material that living things need to live and grow. Many plants get **nutrients** from soil and water.

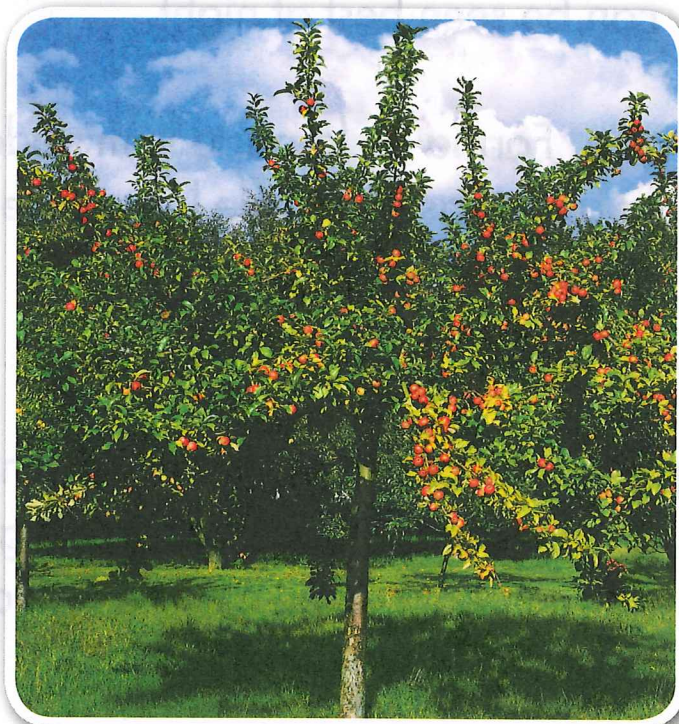
**nutriente** Un material que los seres vivos necesitan para vivir y crecer. Muchas plantas obtienen **nutrientes** del suelo y del agua.





**observe** (əb sɜrv/) To use your senses to find out about something. You can **observe** how an apple looks, sounds, feels, smells, and tastes.

**observar** Usar tus sentidos para descubrir algo. Puedes **observar** el aspecto de una manzana, cómo suena, cómo es cuando la tocas, a qué huele y a qué sabe.



**pattern** (pat' ərn) The way something repeats itself. Weather follows a **pattern**.

**patrón** La manera en que algo se repite. El estado del tiempo sigue un **patrón**.



**phase** (fāz) The shape of the lighted part of the moon. The moon's **phases** can be seen best at night.



**fase** Forma de la parte iluminada de la Luna. Las **fases** de la Luna se ven mejor de noche.

**physical change** (fiz' ə kəl chānj) A change to matter without making it a new kind of matter. Sharpening a pencil causes a **physical change**.

**cambio físico** Un cambio a la materia que no la convierte en una materia nueva. Afilar la punta de un lápiz causa un **cambio físico**.





**position** (pə zish' ən)

Where an object or a person is. The **position** of the boy is to the left of the slide.

**posición** Lugar donde está una persona u objeto. La **posición** del niño es a la izquierda del tobogán.



**precipitation** (pri sip' ə tā' shən)

The water that falls to Earth. Rain is a kind of **precipitation**.

**precipitación** El agua que cae a la Tierra. La lluvia es una forma de **precipitación**.



**predator** (pred' ə tər) An animal that catches and eats another animal. A hawk is a fierce **predator**.



**predador** Animal que caza y se alimenta de otro animal. El halcón es un **predador** feroz.

**prey** (prā) An animal that is caught and eaten. Voles are **prey**.



**presa** Animal que es cazado y comido. Las ratas de campo sirven de **presa**.

**property** (prop' ə r tē) Something about an object that you can observe with your senses. An object's color is one kind of **property**.

**propiedad** Algo en un objeto que puedes observar con tus sentidos. El color de un objeto es una **propiedad** de ese objeto.



**pupa** (pyü' pə) Stage in an insect's life between larva and adult. When a caterpillar is changing inside its covering, it is called a **pupa**.



**pupa** Etapa de la vida de un insecto entre larva y adulto. Cuando la oruga cambia dentro de la cubierta que la protege, se llama **pupa**.

R

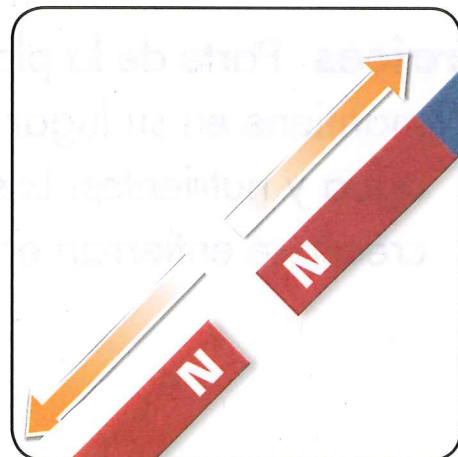
**recycle** (rē sī' kəl) To change something so it can be used again. My family **recycles** plastic milk containers.

**reciclar** Cambiar algo de manera que se pueda usar otra vez. Mi familia **recicla** envases plásticos para leche.



**repel** (ri pel') To push away. The north ends of magnets will **repel** each other.

**repeler** Apartar algo empujándolo. Los polos norte de dos imanes se **repelen** uno al otro.



**rock** (rok) A hard, solid part of Earth that is not soil or metal. José collects **rocks**.



**roca** Una parte dura y sólida de la Tierra que no es suelo o metal. José colecciona **rocas**.

**roll** (rōl) To move by turning over and over. The wheels **roll** around.

**rodar** Mover dando vueltas. Las ruedas **ruedan**.



**roots** (rütz) Part of the plant that holds the plant in place and takes in water and nutrients. **Roots** grow into the soil.

**raíces** Parte de la planta que la mantiene en su lugar y que absorbe agua y nutrientes. Las **raíces** al crecer se entierran en el suelo.



## S

**salt water** (sòlt' wò' tər) Water with lots of salt in it. The ocean is **salt water**.

**agua salada** Agua con mucha sal. El mar tiene **agua salada**.



**slide** (slīd) To move smoothly along a surface. The penguins **slide** on ice.

**deslizarse** Moverse suavemente a lo largo de una superficie. Los pingüinos **se deslizan** sobre el hielo.



**solid** (sol' id) Matter that keeps its own size and shape. The case that holds the supplies is a **solid**.

**sólido** Materia que mantiene tamaño y forma propios. La caja de útiles de pintura es un **sólido**.



**spin** (spin) To twirl around and around. The top **spins**.

**girar** Dar vueltas alrededor de un punto. El trompo **gira**.



**star** (stär) A ball of burning gases that gives off light and heat. There are many **stars** in the night sky.

**estrella** Bola de gases muy calientes que produce calor y luz. De noche hay muchas **estrellas** en el cielo.



**stem** (stem) Part of the plant that carries water and nutrients to the leaves. Some plants have a straight **stem**.

**tallo** Parte de la planta que lleva el agua y los nutrientes a las hojas. Algunas plantas tienen el **tallo** derecho.

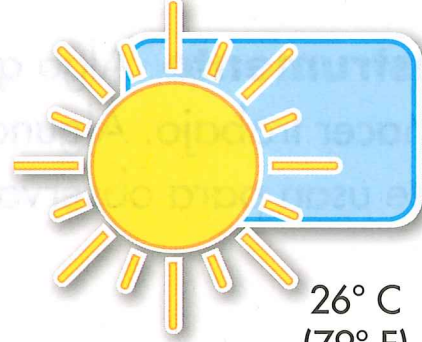


# T

**temperature** (tem' pər ə chər)

How hot or cold something is. The

**temperature** is higher in the summer, when it is warmer.

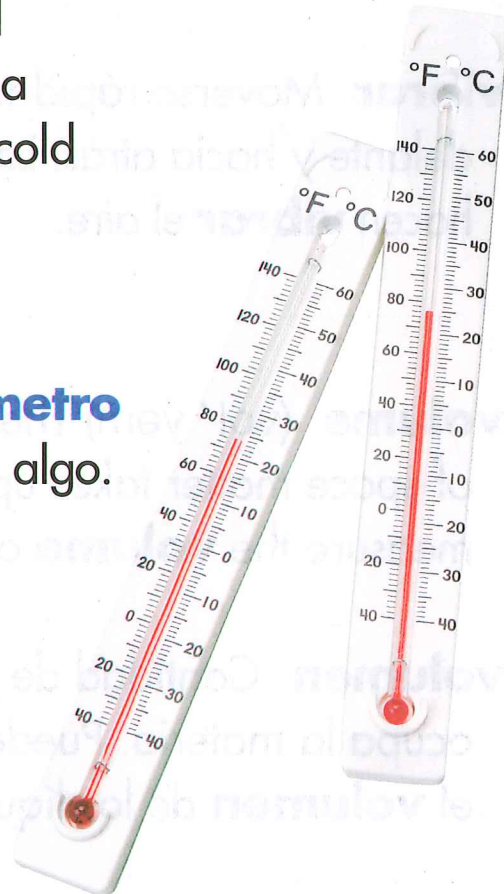


26° C  
(79° F)

**temperatura** Cuán caliente o fría está una cosa. La **temperatura** es más alta en verano, cuando hace calor.

**thermometer** (thər mom' ə tər) A tool that measures temperature. You can use a **thermometer** to measure how hot or cold something is.

**termómetro** Instrumento para medir la temperatura. Puedes usar un **termómetro** para medir cuán caliente o cuán frío está algo.



**tool** (tül) Something that is used to do work. Some **tools** are used to observe.

**instrumento** Algo que se usa para hacer trabajo. Algunos **instrumentos** se usan para observar.



V

**vibrate** (vī' brāt) To move quickly back and forth. Drums make the air **vibrate**.

**vibrar** Moverse rápidamente hacia delante y hacia atrás. Los tambores hacen **vibrar** el aire.



**volume** (vol' yəm) The amount of space matter takes up. You can measure the **volume** of liquids.

**volumen** Cantidad de espacio que ocupa la materia. Puedes medir el **volumen** de los líquidos.

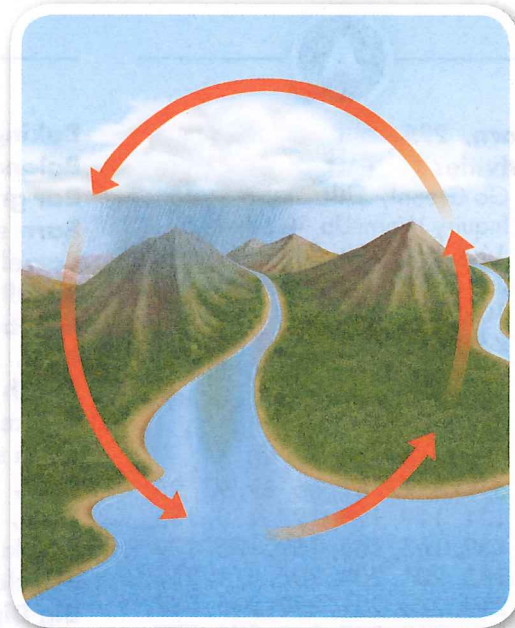




# W

**water cycle** (wò' tər sī' kəl) The way water moves from Earth to the clouds and back to Earth again. Water condenses and evaporates in the **water cycle**.

**ciclo del agua** Manera en que se mueve el agua de la Tierra hacia las nubes y de nuevo a la Tierra. El agua se condensa y se evapora en el **ciclo del agua**.



**wind** (wind) Moving air. **Wind** can be very powerful.

**viento** Aire que se mueve. El **viento** puede ser muy fuerte.



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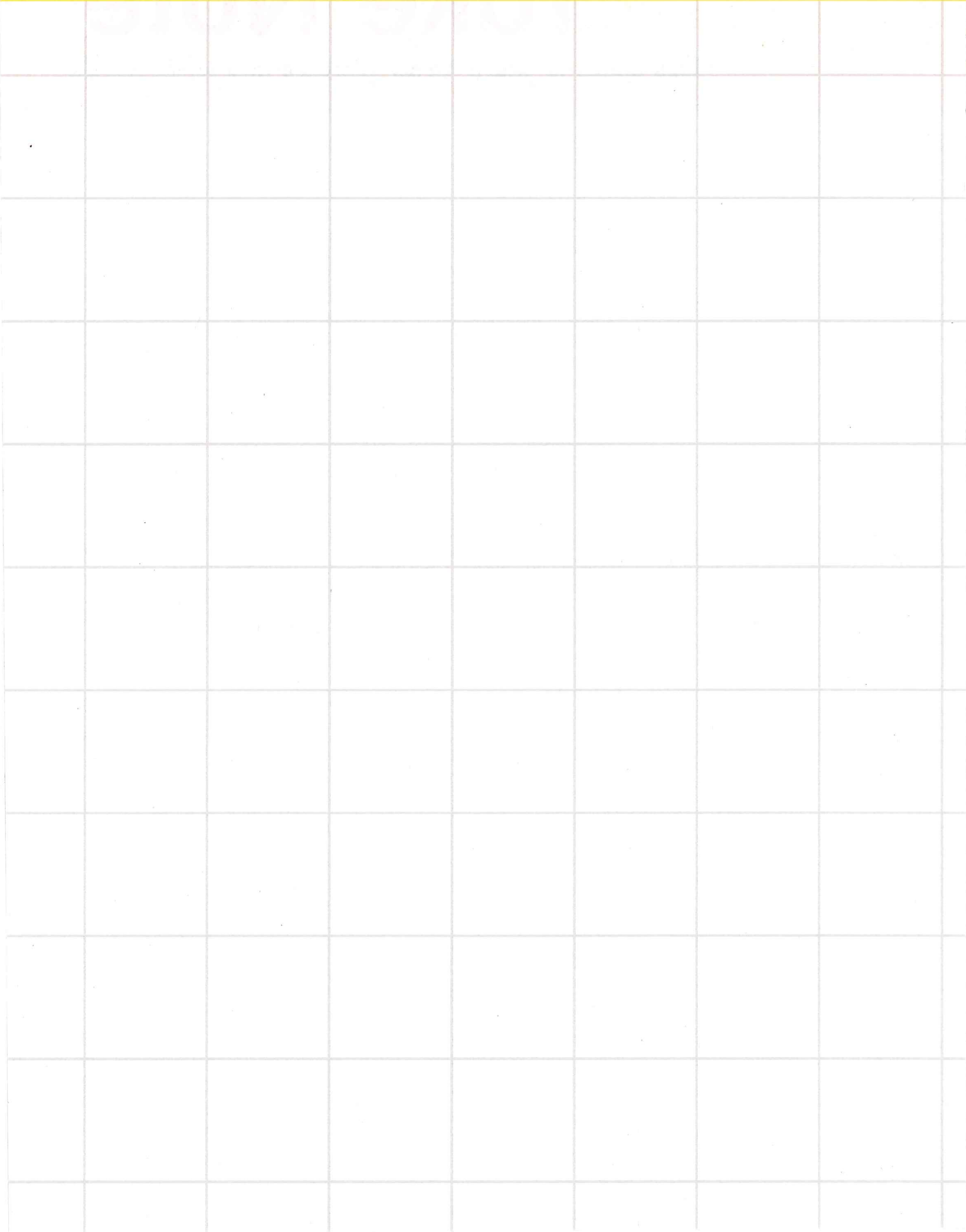
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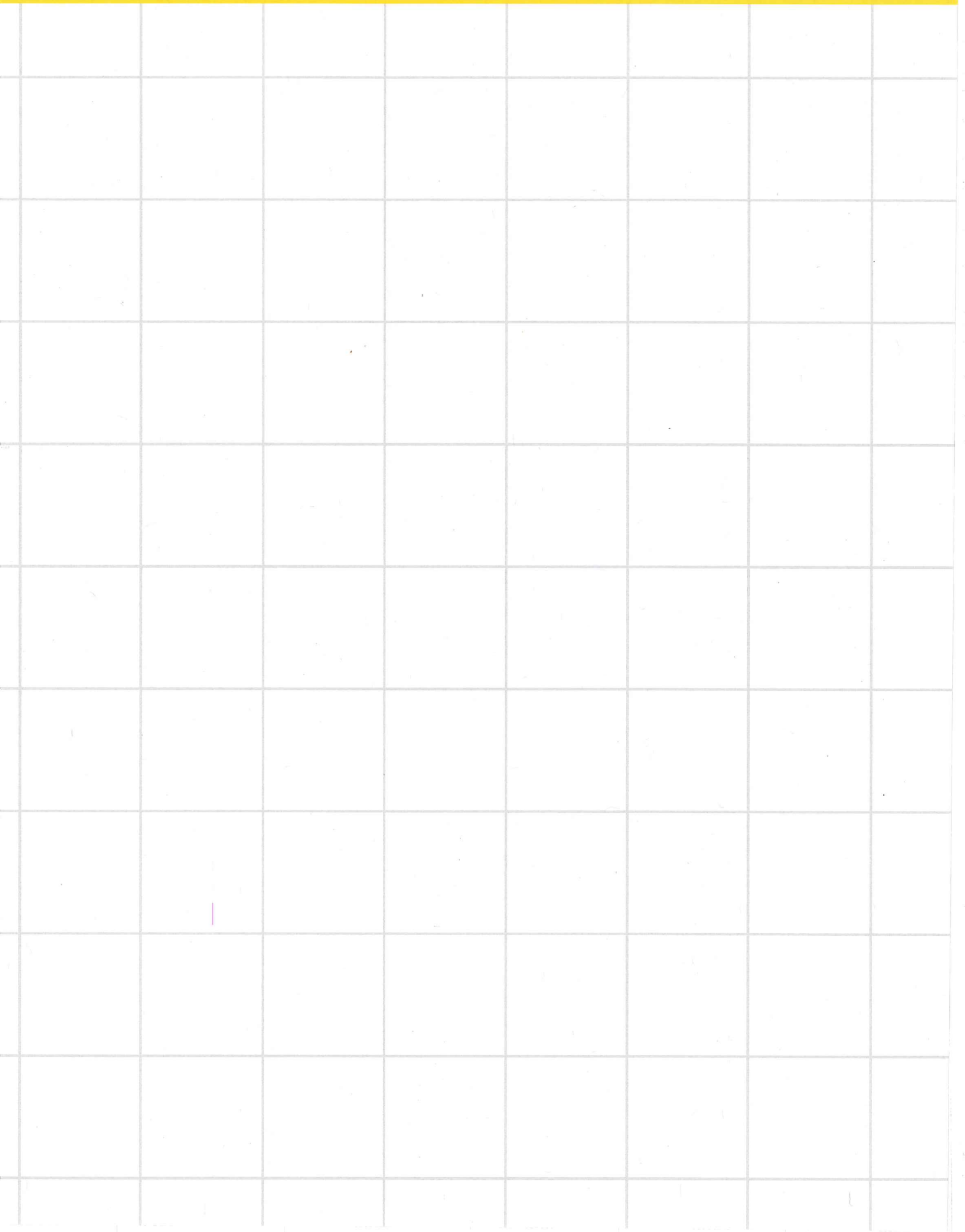
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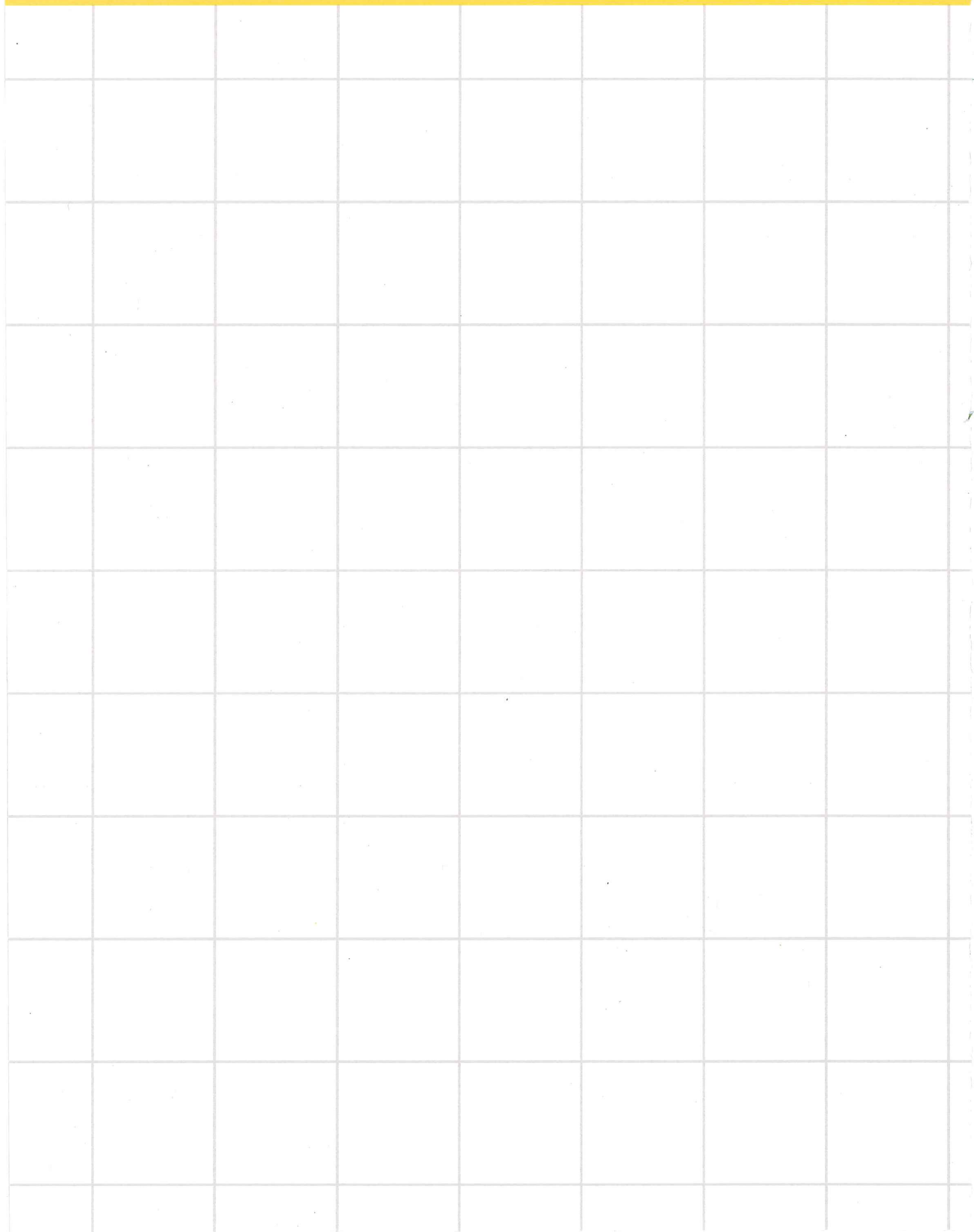
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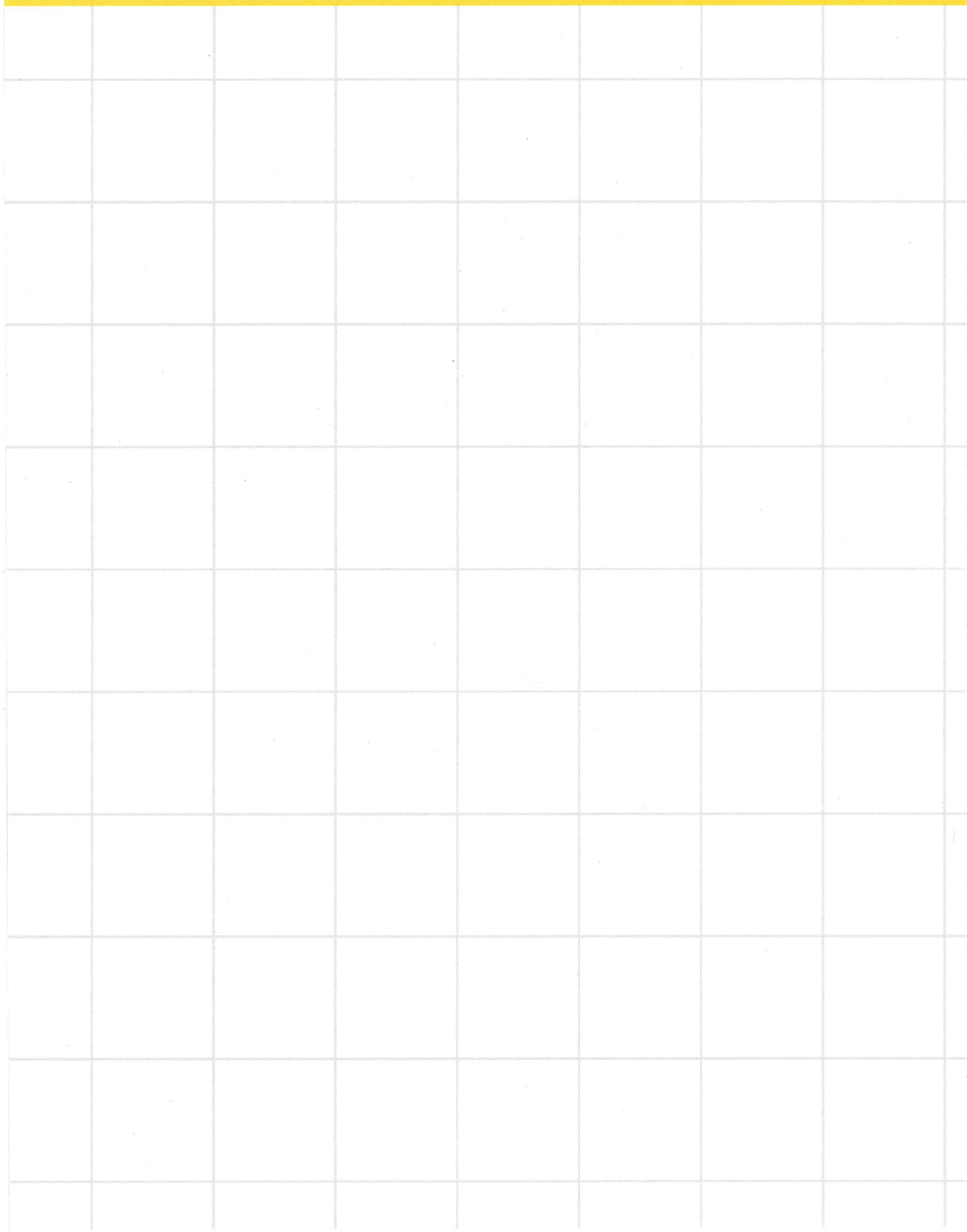
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