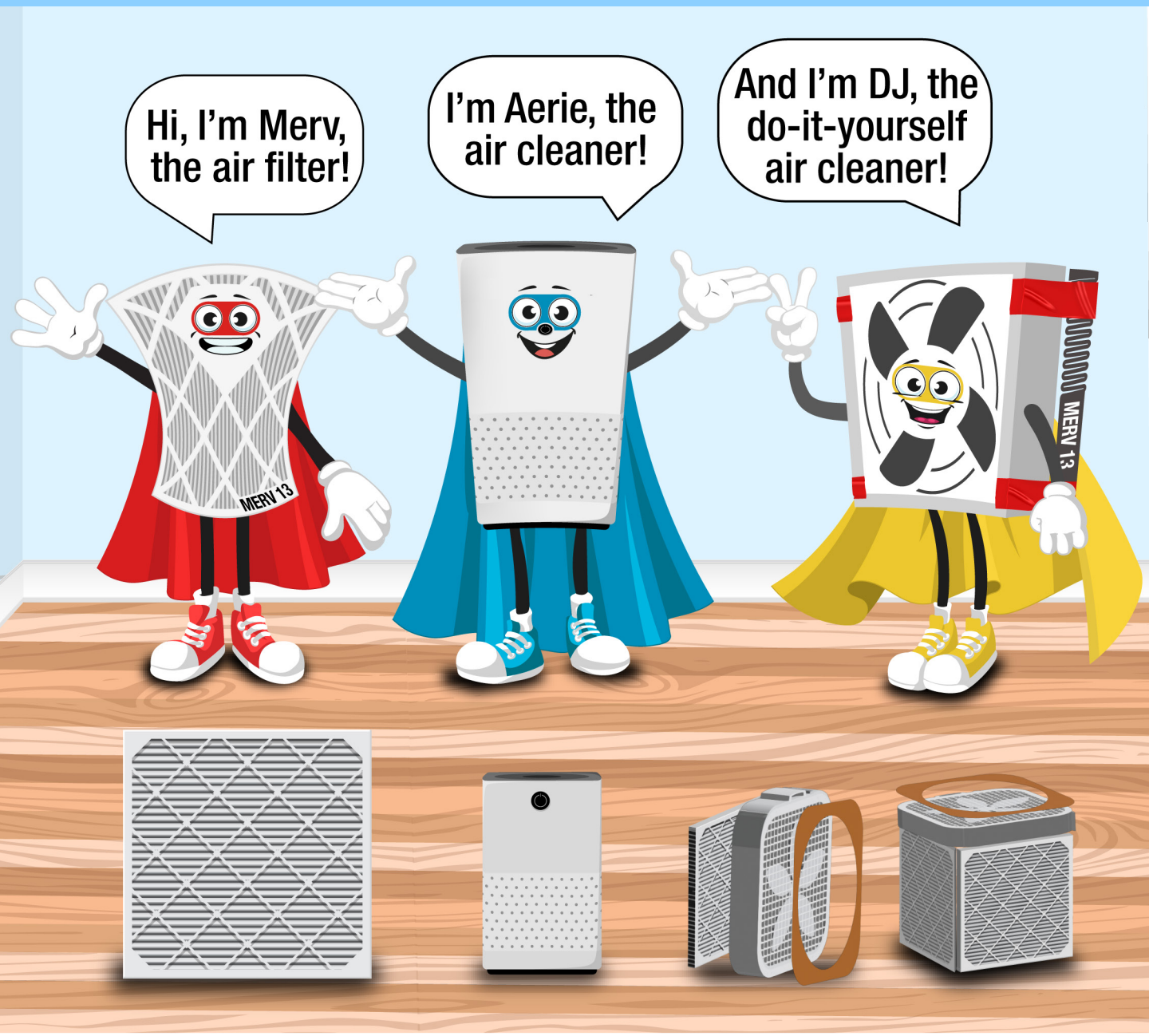
Air Cleaning Allies Activity Book

EPA

Meet the Air Cleaning Allies!

We're here to help you learn how to keep the air in your home clean.

An ally is a friend who is there to support you and help you to achieve your goals!

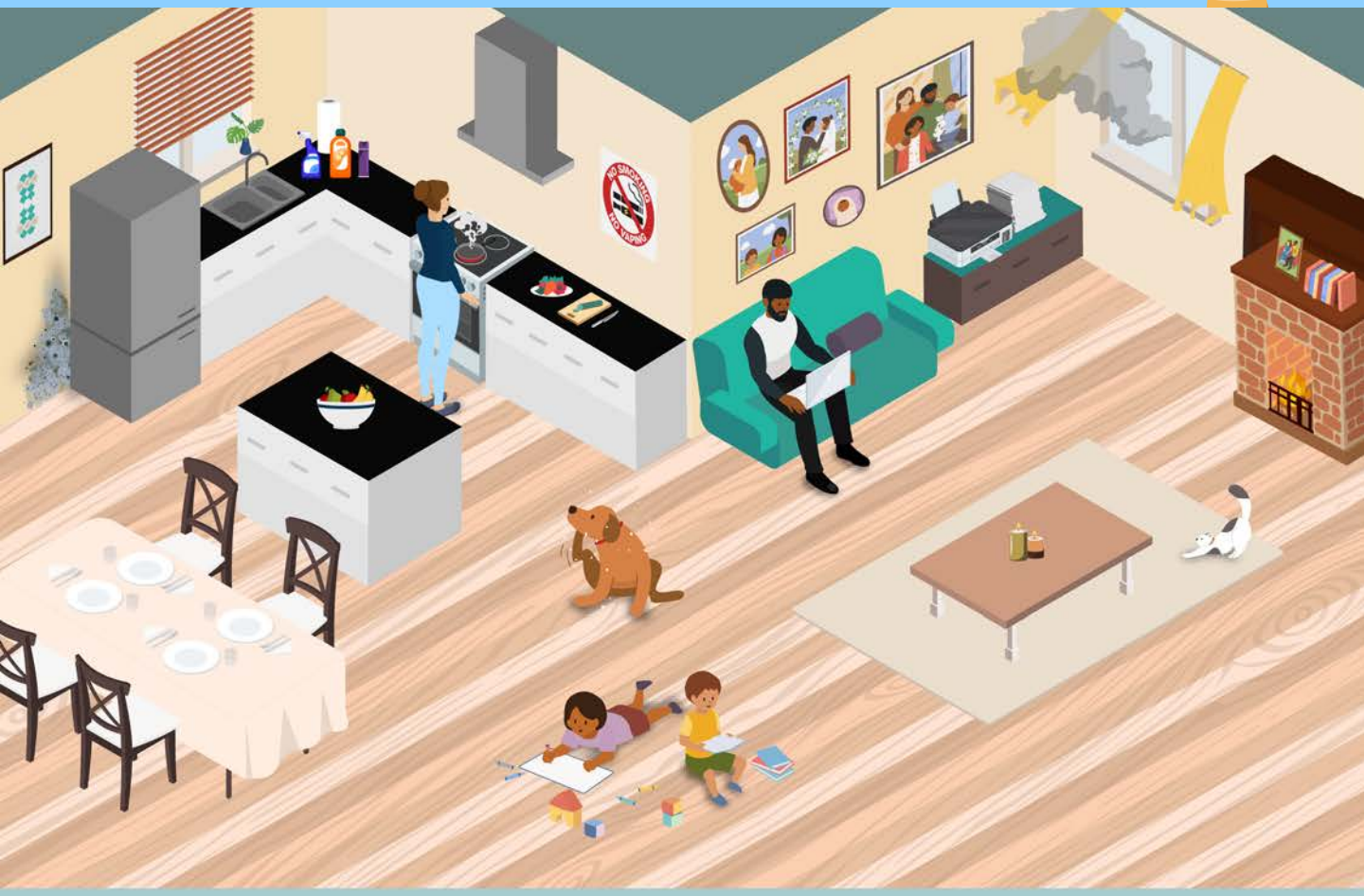


Air filters and air cleaners can help keep the air in your home clean. As air passes through them, the filters capture small particles of dust and debris, making the air cleaner.

How Do Particles Get Into the Air?

There are many sources of particle pollution indoors.

Why Is Particle Pollution Important?
Keeping levels of particle pollution low helps keep the air in your home healthier to breathe, especially if you have asthma or allergies.



Can you find the common sources of indoor particle pollution?

Candles

Cleaning Supplies

Cat

Cooking

Mold

Dog

Printer

Outdoor Air

Fireplace

Smoking and Vaping

Find the answers on page 14!

How Can We Promote Healthy Indoor Air?

Do you know 3 ways to make your indoor air healthier?

1. Reduce Sources of Indoor Particles

The best way to keep the air in your home free of particles is to remove or reduce what makes them!

2. Bring in Fresh Air and Send Out Dirty Air

On days when the weather and air quality are good, open windows and use fans to bring in fresh outdoor air.

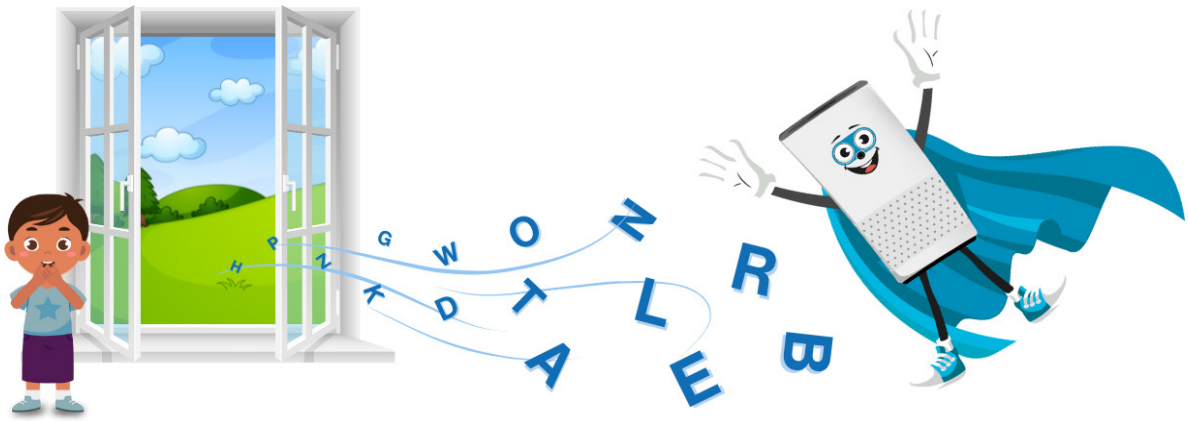
Open windows and use fans when you do things like cook or take a shower to clear out particles and other pollutants from your home.

3. Filter Particles From the Air

Use filters in home cooling and heating systems and air cleaners to take particles out of the air.

The Fresh Outdoor Air Scrambled the Letters!

Help Aerie unscramble the words about air cleaning.



IRA PLUINOLTO _____

FLERIT _____

ARI NCLAERE _____

RICTEPAL _____

DINORO RAI _____

KMSOE _____

EALYHTH _____

TREBHAE _____

WORD BANK

Air Pollution	Healthy	Smoke	Air Cleaner
Particle	Filter	Indoor Air	Breathe

Find the answers on page 14!

The Air Cleaning Allies Offer Their Help!

Hello, my name is Riley.

Hi! I'm Tracy.

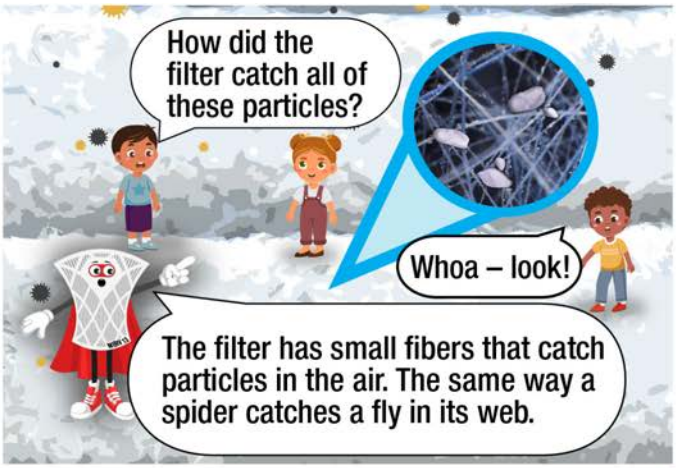
And I'm Jordan.

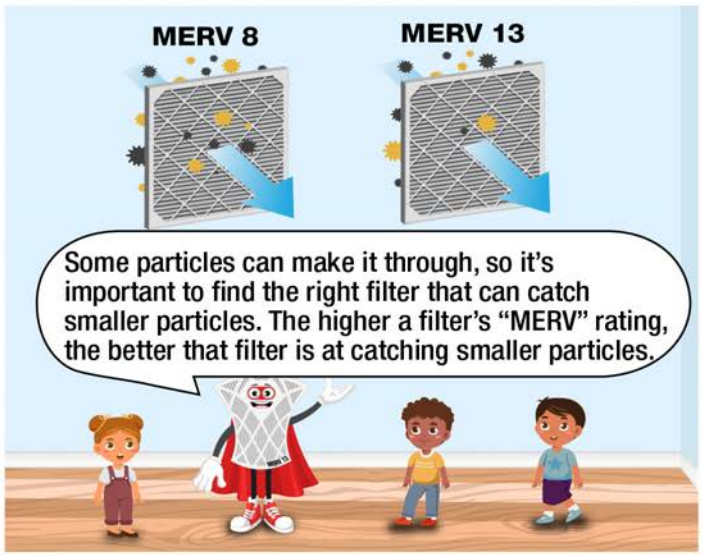
Riley has trouble breathing in the house because particles in the air trigger his asthma.

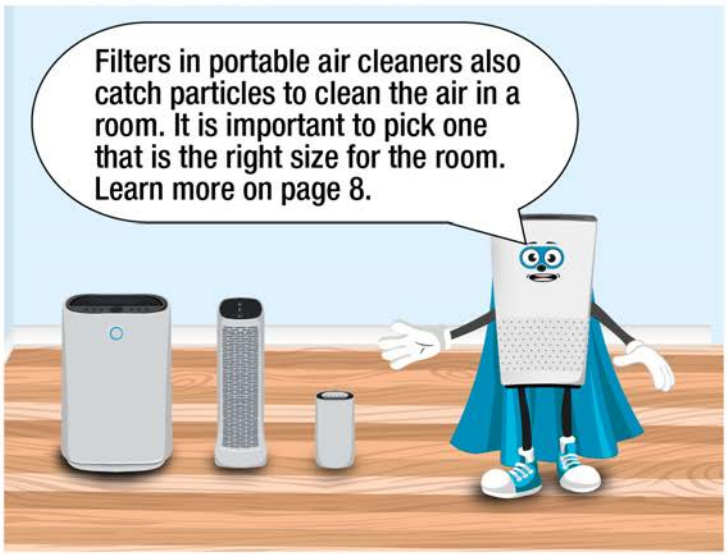
Do You Know How Filters Work?

Filters are usually found in your home's cooling or heating system and in air cleaners. They can help keep the air clean.

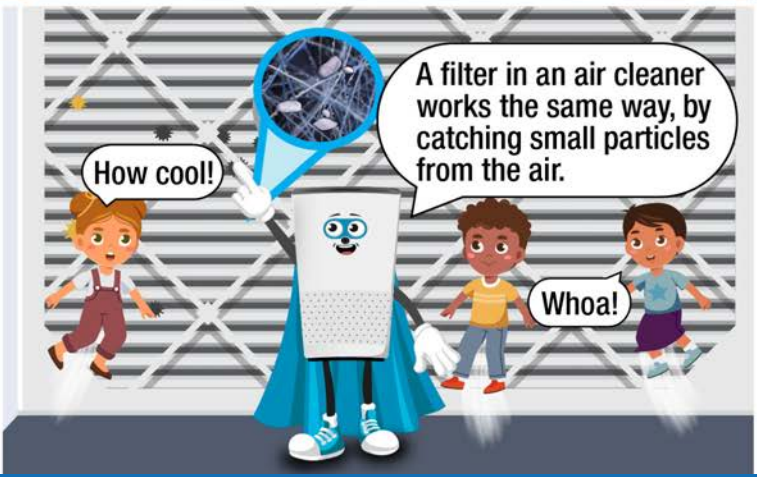
Merv and the kids shrink down to explore an air filter and learn how it works.







Now Aerie and the kids continue their adventure by exploring how an air cleaner uses filters.



Help the Air Make Its Way Through a Filter!

Only particles get stuck...

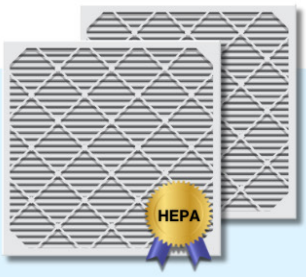
DID YOU KNOW?

Filters are rated based on how well they work, just like your grades in school. A higher MERV rating means the filter catches more particles. **Ask your parent or guardian if they know the rating of the filter in your home's heating or cooling system, if you have one.**

Find the answer on page 14!

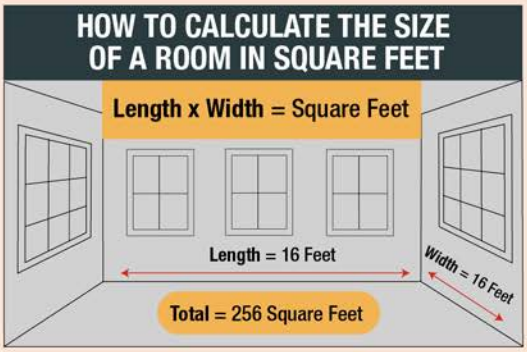
WHAT ARE HEPA FILTERS?

HEPA filters are the best at catching small particles. Many portable air cleaners have HEPA filters.



Is My Portable Air Cleaner the Right Size?

Help Jordan, Riley, and Tracy find the air cleaner that is the right size for their room.

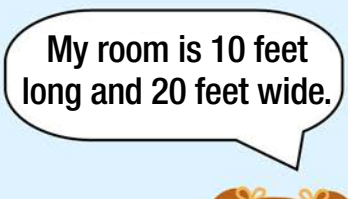


Draw a line from each kid to the air cleaner with the correct room size.

200 square feet

150 square feet

180 square feet



Find the answers on page 14!

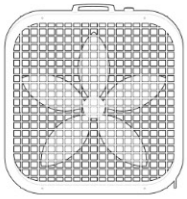
Preparing for Smoke Emergencies

Do-it-yourself air cleaners can come in handy in an emergency when you can't get portable air cleaners.

DJ teaches the kids about do-it-yourself air cleaners and how to build one during an emergency.

Let's Color!

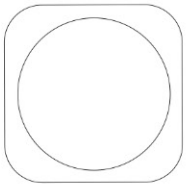
Color in each of the materials to make a **DIY** air cleaner.



1 Box Fan

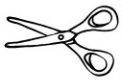
4 MERV 13 Filters

Duct Tape

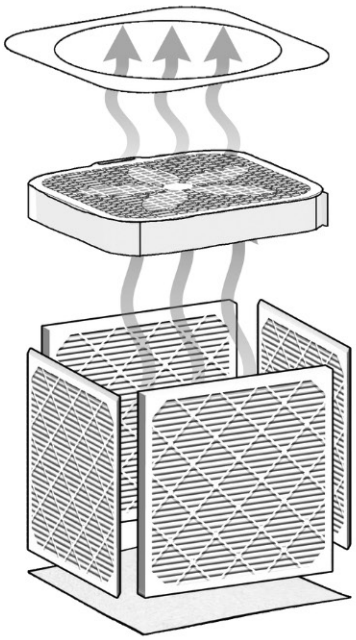


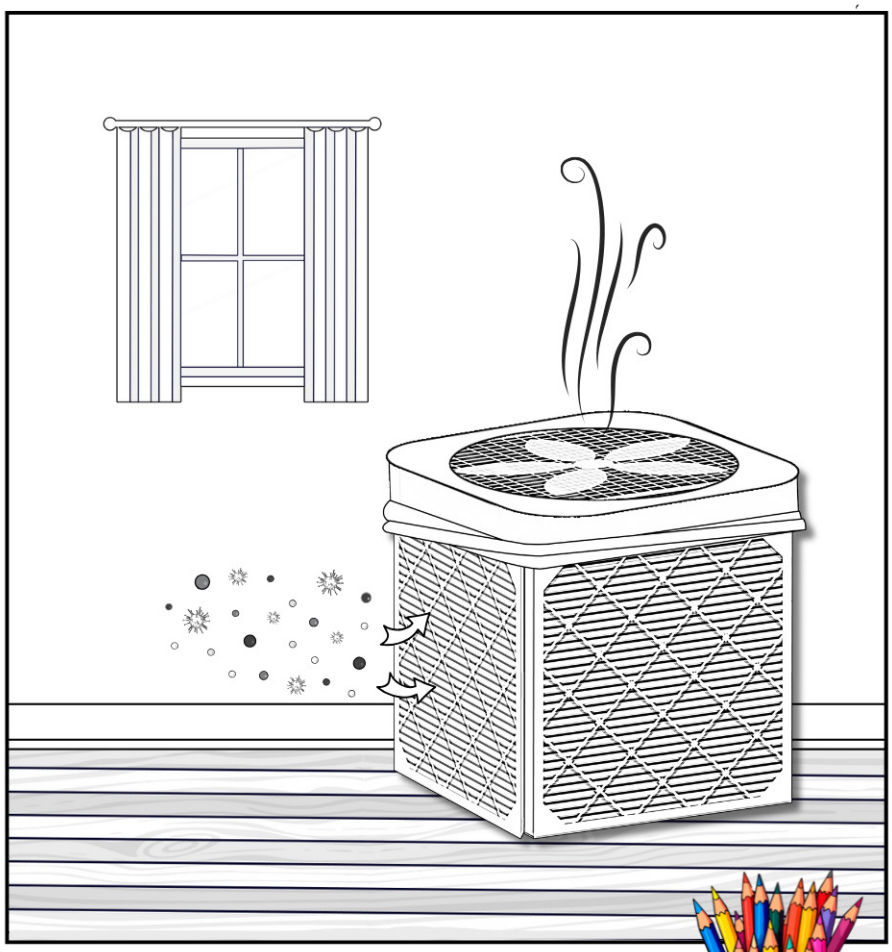
1 Cardboard Shroud

1 Cardboard Square



Scissors





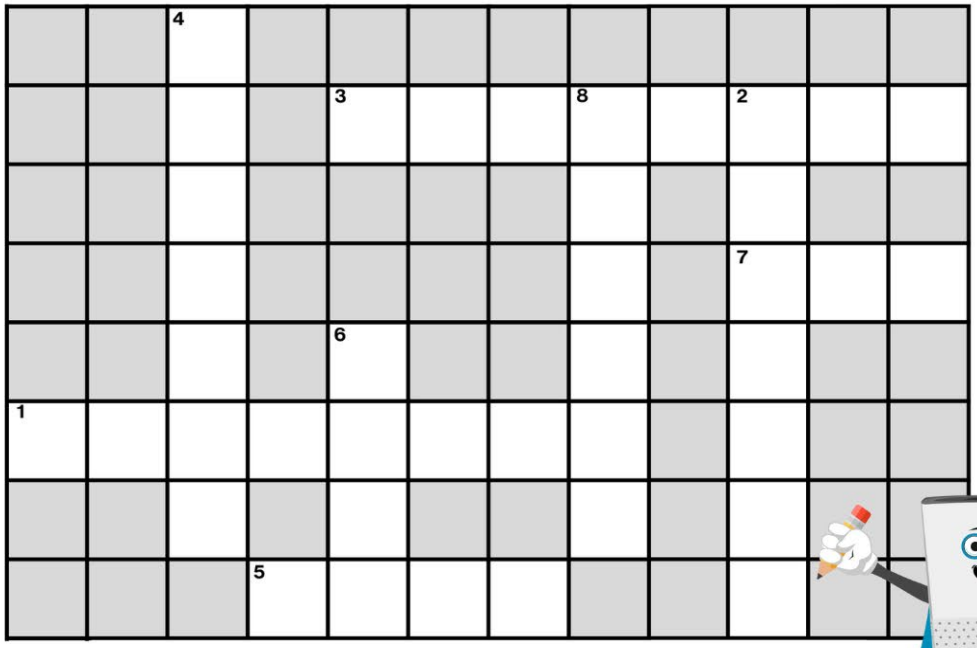
Learn how to build your own!

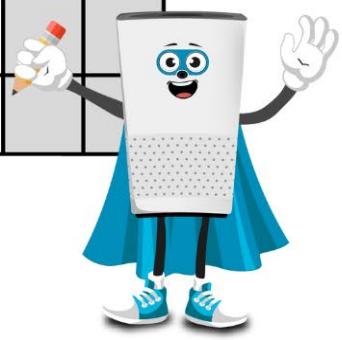
What Did You Learn?

Complete the **crossword puzzle** to show how much you learned. Look back in the booklet to find the answers, if needed.

WORD BANK

Cleaning	Indoors	Filters	Allies
Particle	MERV	Size	DIY





ACROSS

1. _____ pollution can come from outdoor and indoor sources.

3. Using air _____ devices can help improve your indoor air.

5. The higher the _____ rating of your filter, the better it works at capturing particles.

7. During an emergency, if you can't find a portable air cleaner, you can make a _____ air cleaner.

DOWN

2. It's important to keep the air _____ healthy to breathe.

4. _____ can capture particles from the air.

6. Use a portable air cleaner that is the right _____ for your space.

8. The Air Cleaning _____ can help you learn about ways to keep the air in your home clean.

Find the answers on page 14!

With the help of the Air Cleaning Allies, the kids cleaned their indoor air. Now everyone can breathe better!

Glossary

air cleaning: Air filters and air cleaners pull air through a filter and capture small particles of dust and debris, to make the air passing through much cleaner.

ally: A friend who is there to support you and help you to achieve your goals.

filter: A device that collects small particles of dust and debris from the air passing through it.

MERV: A Minimum Efficiency Reporting Value, or MERV, reports a filter's ability to capture particles.

particle: Particles can include dust, dirt, soot, or smoke that are in the air. Some particles are large or dark enough to be seen with the naked eye, while others are too small to see without a microscope.

Resources for Kids, Parents and Guardians, and Educators

Ask a parent, guardian, or teacher to help you scan the QR codes below to access the resources.

The EPA's Indoor Air Quality Homepage
www.epa.gov/indoor-air-quality-iaq

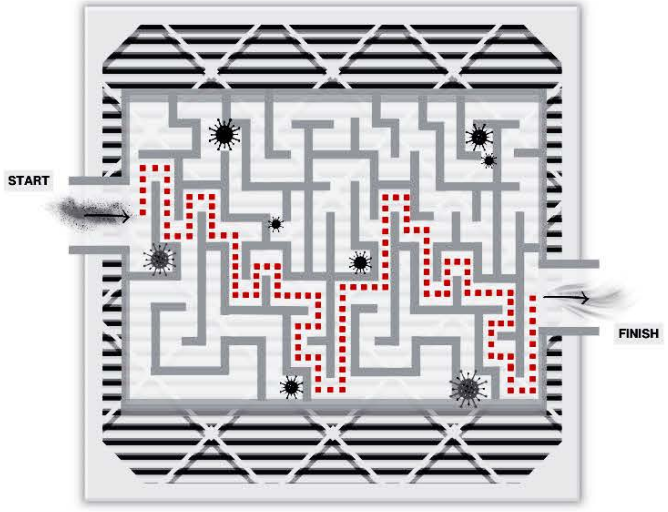
Guide to Air Cleaners in the Home
www.epa.gov/indoor-air-quality-iaq/guide-air-cleaners-home

Build a Do-It-Yourself Air Cleaner
www.epa.gov/emergencies-iaq/diy-air-cleaners

Answer Key

Can You Find?

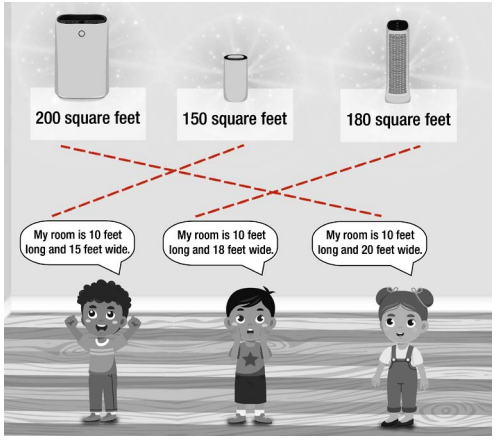
Filter Maze



Word Scramble

1. Air Pollution
2. Filter
3. Air Cleaner
4. Particle
5. Indoor Air
6. Smoke
7. Healthy
8. Breathe

Right Size Air Cleaner



Crossword Puzzle

		4 F									
		I		3 C	L	E	8 A	N	2 I	N	G
		L					L		N		
		T					L		7 D	I	Y
		E		6 S			I		O		
1 P	A	R	T	I	C	L	E		O		
		S		Z			S		R		
			5 M	E	R	V			S		

ACROSS

1. Particle
3. Cleaning
5. MERV
7. DIY

DOWN

2. Indoors
4. Filters
6. Size
8. Allies

Learn About Particle Pollution in Your Home!

This activity book raises awareness of the common sources of particle pollution inside homes and the effective strategies for promoting healthier indoor air.

By teaming up, kids and their parents or guardians can learn about these strategies and why it is important to keep the air indoors healthier to breathe.

This book includes —

- Fascinating illustrations to color.
- Comic strips featuring the Air Cleaning Allies.
- Engaging activities for children ages 7 and up to enjoy.
- Puzzles, word games, activities, and more!

DISCOVER WHAT YOU CAN DO TO KEEP THE AIR IN YOUR HOME CLEAN!

EPA

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