

radon

classroom lesson

 Southwest Nebraska Public Health Department

-
- **What is radon?**
 - **Where does radon come from?**
 - **How does it hurt your health?**
 - **How does radon get in homes?**
 - **How do you test for radon?**
 - **How do you get rid of radon?**
-

What is radon?



The answer is

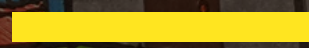
Radon is a gas found in nature.

You can't see it, smell it, or taste it.

If it builds up indoors it can be a health hazard for you and your family.

Protect
your
home
now!

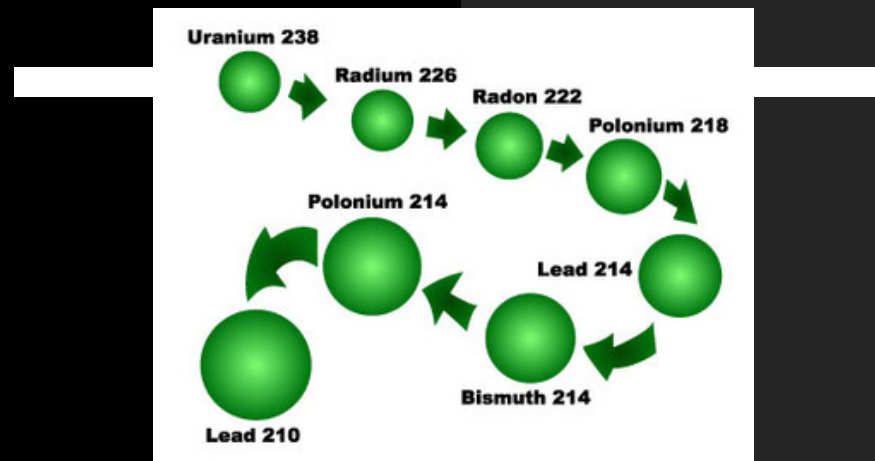
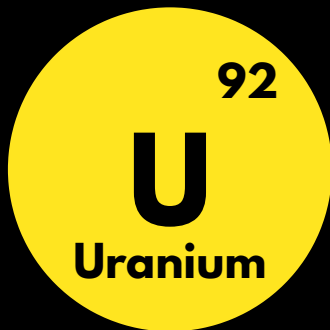
RADON



Where does radon come from?

Uranium

- a radioactive element found in the soil
- it was present when the earth was formed
- it still exists today
- uranium decays (breaks down) to form radon

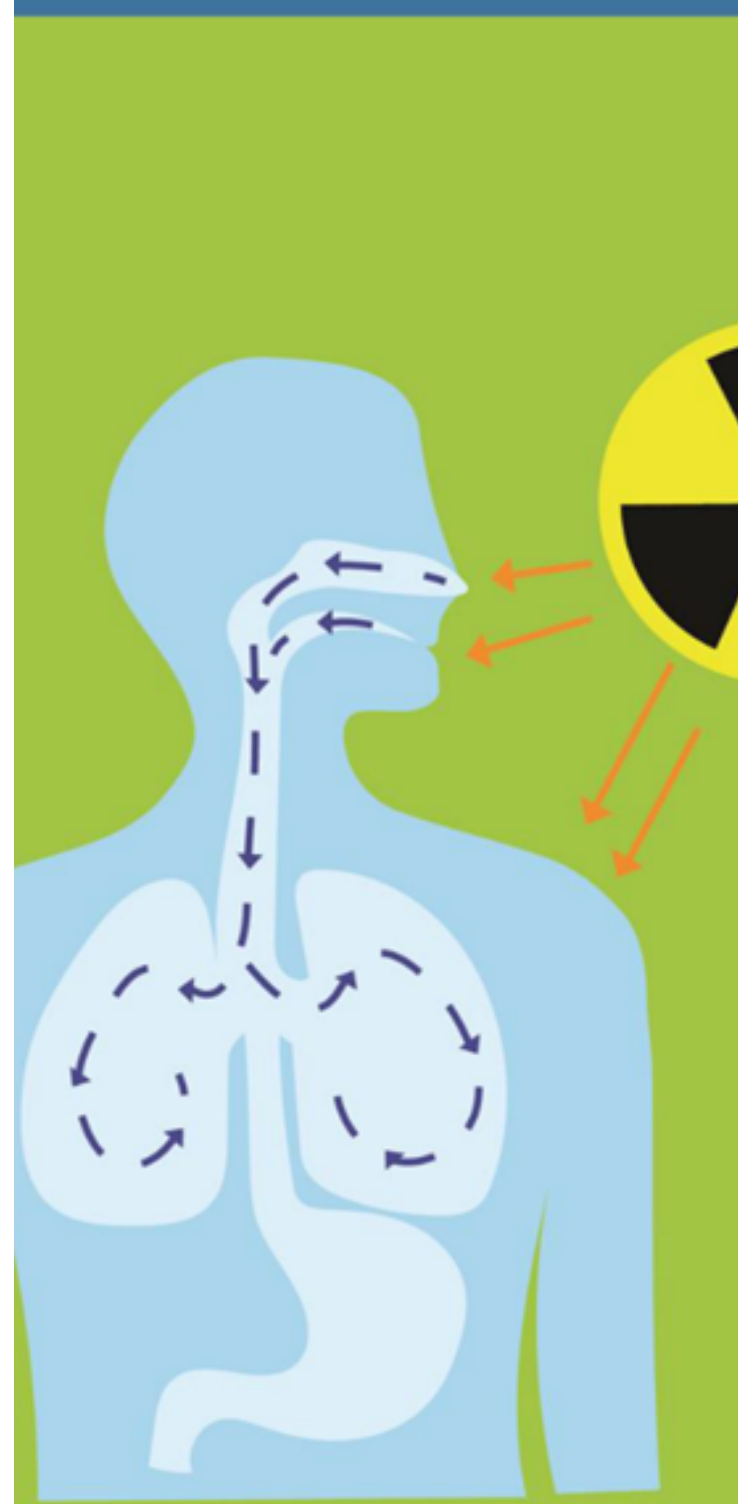


How does radon hurt your health?

2nd

leading cause of lung cancer

Radioactive particles become trapped in your lungs, damage your DNA, and increase your risk of lung cancer.



2 Factors

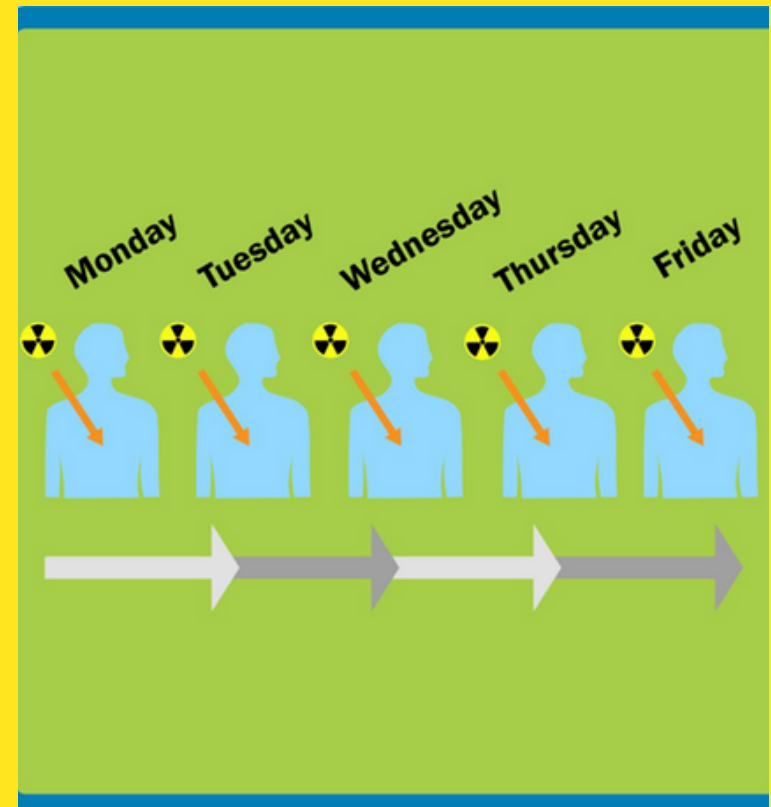
The risk of developing lung cancer from breathing radon depends on:

1.

The amount of radon in the air that we breathe. (>4.0 pCi/l is too high)

2.

How long we breathe the air with these high radon levels. (Cancer takes years to develop.)

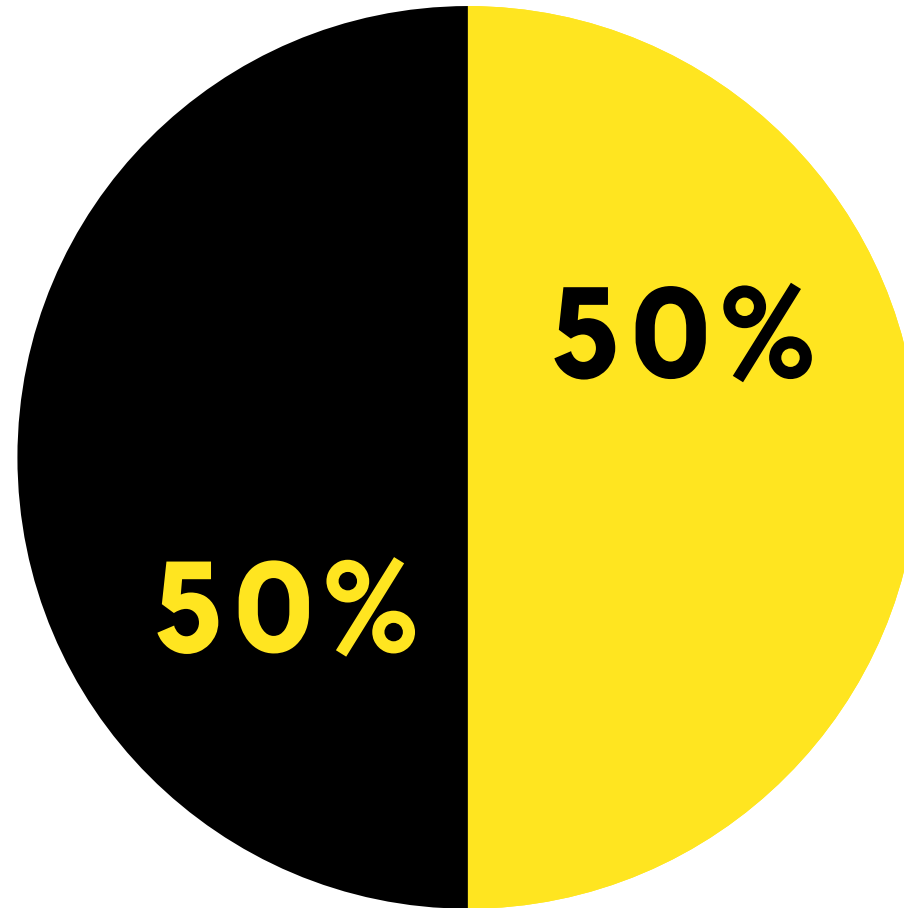


1 in 2 Homes in Nebraska

Have a high radon level

Not all homes
or buildings
have the
same radon
level.

Low Radon



High Radon

One home may
have a low level
while the home
next door may
have a high
level.

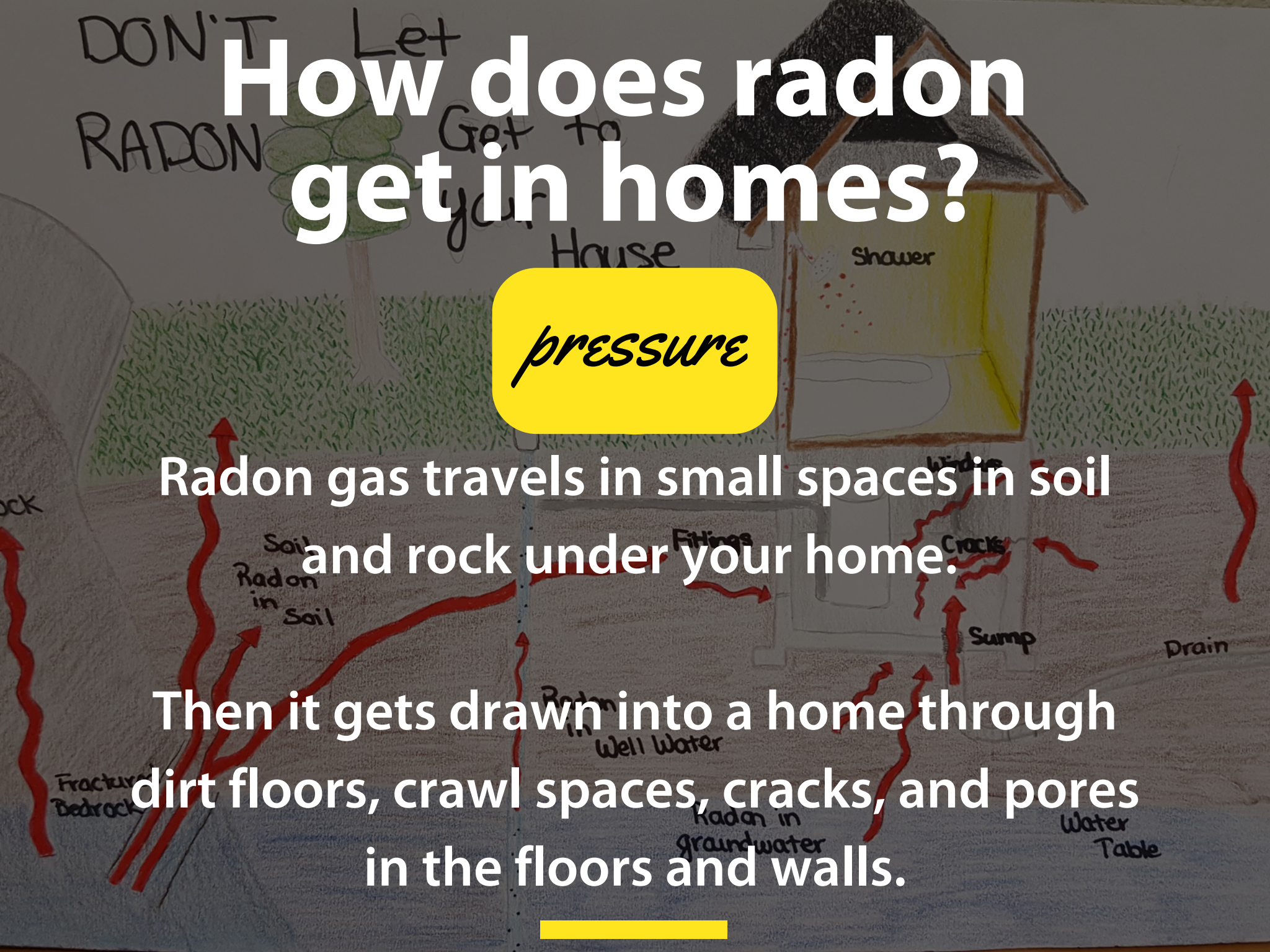
**The only way to find out the radon level
in your home is to TEST.**

How does radon get in homes?

pressure

Radon gas travels in small spaces in soil and rock under your home.

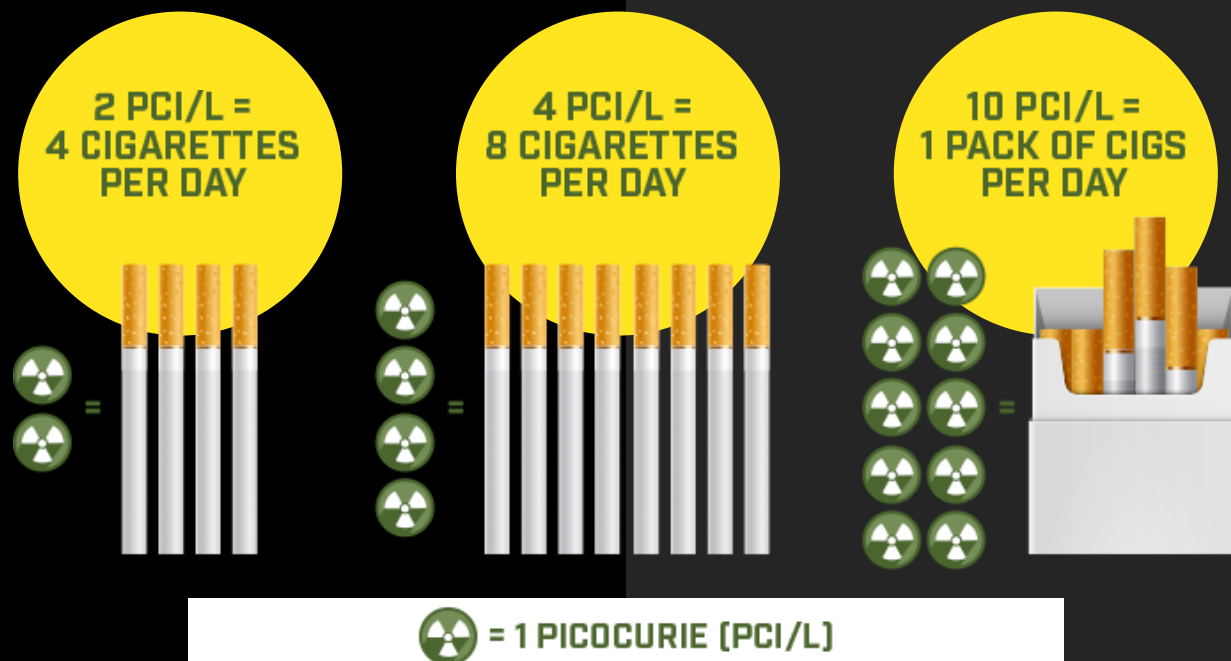
Then it gets drawn into a home through dirt floors, crawl spaces, cracks, and pores in the floors and walls.



How is radon measured?

picoCuries per liter

- Named after the famous scientist Marie Curie
- It is the amount of radioactivity in each liter of air
- It is written pCi/L or PCI/L
- The EPA action level (need to fix) is 4.0 pCi/L
- No level of radon is safe



How do you test for radon?

Short-term test kits

2 to 7 days

Quick way to know your radon level. Only shows 1 week at a time.

Long-term test kits

90 days to 1 year

Shows the average annual radon level in your home. More accurate.

Radon monitors

Continuous

Show the running average radon level with constant air sampling.



How do you get rid of radon?

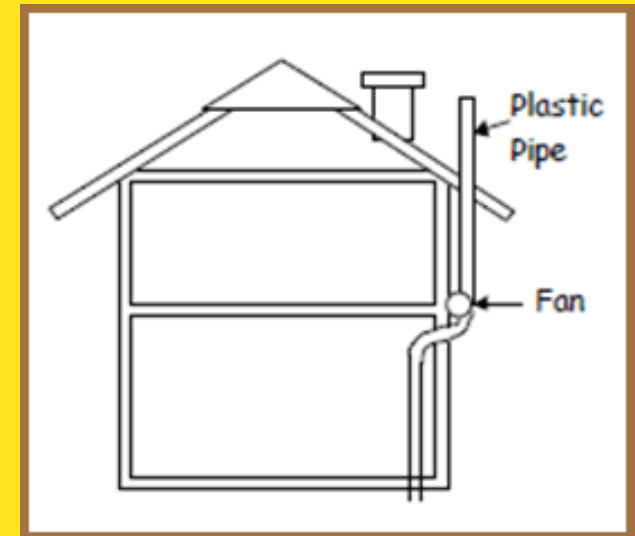
mitigation

1.

Mitigation is the process of reducing the build-up of radon gas in buildings

2.

Licensed radon mitigators are trained to lower radon levels by sealing leaks, covering crawl spaces and installing ventilation pipes.



A small fan pulls the radon from the ground into the pipe and out into the air above the roof.

Mitigation Systems



Costs vary

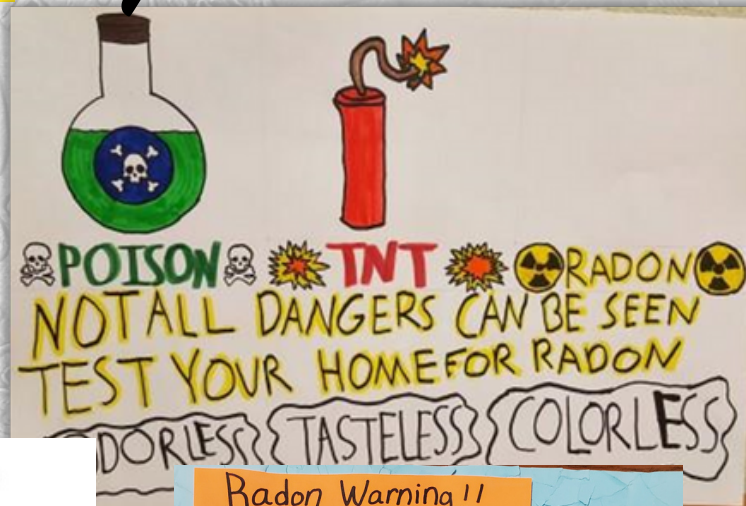
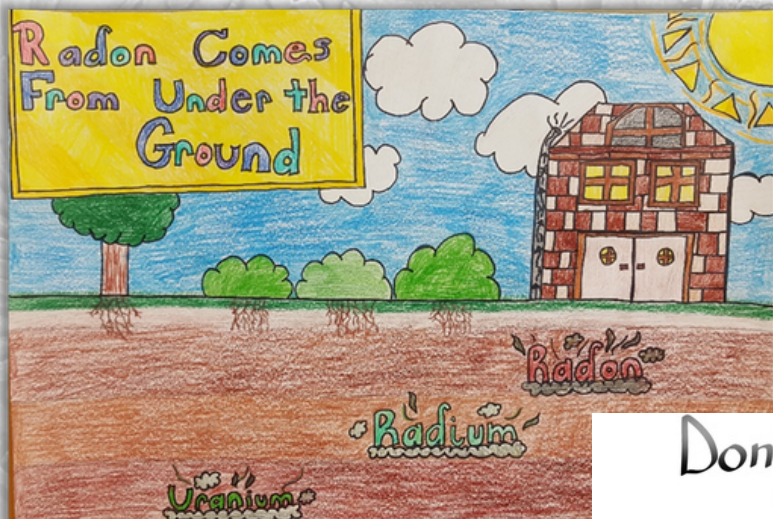
Get a list of licensed radon professionals from
Southwest Nebraska Public Health Department

Radon Poster Contest

- Open to ages 9 to 14.
- Pick a poster topic from the lesson, such as what is radon, how does radon get into homes, radon causes lung cancer, test your home for radon.
- Recommended paper sizes are 12"x18" or 8.5"x11" or digital.
- Fill out the Artwork Submission Form and tape it to the back of posters (no names on front of posters).
- Submit posters to Southwest Nebraska Public Health Department by November 30th.

 *Cash prizes for top entries*

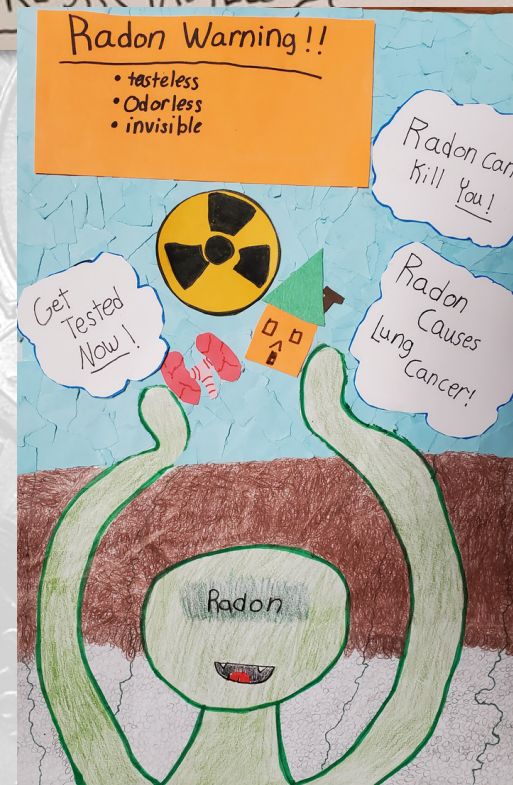
Poster Examples



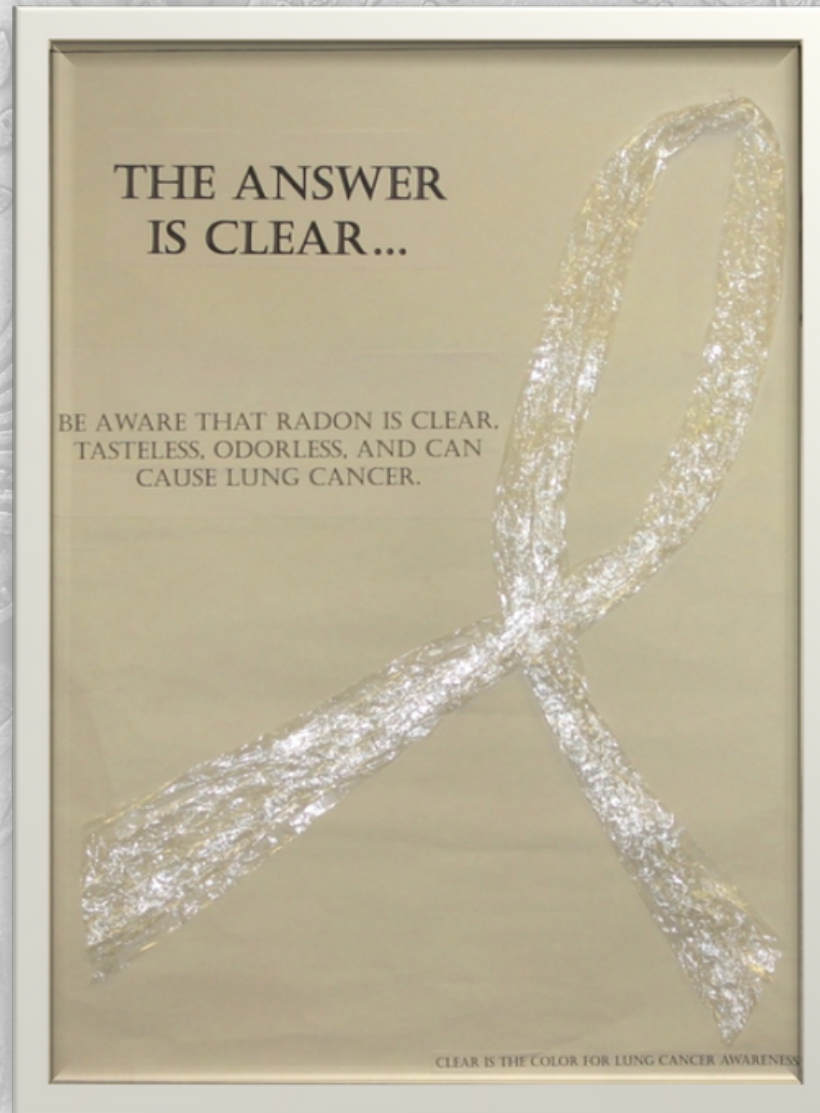
Don't play games with your health.



Every other Nebraskan home tests Positive for high radon levels. Don't take your chances. Test now. Save lives.



National Winner



JoAnn Neel, 2012 Radon Poster Contest Winner
1st Place in Nebraska, 3rd Place in the U.S.

Judging Criteria

Content is accurate

Easy to read

Simple to understand

Original - your own ideas

(no copying previous winners)

No copyrighted characters

(No Disney, Marvel, video games, etc.)

If you participated in this contest before and were encouraged by a teacher or parent to submit a poster again, you can use the same idea with better artwork, clearer words, etc.

For more information, contact



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