Name: _____ Date: _____

The Technician Who Counts Pollen Grains

Circle group

For people with allergies, spring can mean sneezing and itchy eyes. Pollen is a tiny dust that plants send into the air. Some people react to it. A pollen counter is a worker who measures how much pollen is in the air. Then people can plan their days.

The work starts with a sampler on a roof. It pulls in air. It traps tiny bits on a sticky strip. Each day the worker takes the strip to a lab.

Under a microscope, the strip looks like a field of dots. Pollen from an oak tree looks different from pollen from grass or ragweed. Each kind has its own shape and size. The worker learns to tell them apart. Then the worker counts the grains in a small part of the strip. Math tells how many grains were in a set amount of air.

The results go into weather reports and websites. They are often low, medium, or high. A person who sees a high count might keep the windows shut. Or the person might take an allergy medicine that a doctor said was fine.

Questions

1. What is pollen?

_____

_____

2. Where is the sampler put?

_____

_____

3. What traps the pollen on the sampler?

_____

_____

4. How does the worker tell one kind of pollen from another?

_____

_____

5. How are the results often given?

_____

_____

6. Why does the worker use math after counting a small part?

_____

_____

7. Why is a pollen report useful for a person with allergies?

_____

_____

Words to know

pollen: the fine yellow dust made by flowers, trees, and grasses
allergy: a body reaction, like sneezing, to something harmless
microscope: a tool that makes tiny things look big
sampler: a device that collects a small piece of something to study

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

The Technician Who Counts Pollen Grains

Triangle group

For people with allergies, spring can mean sneezing and itchy eyes. Pollen is a tiny dust that plants release into the air. Some people react to it. A pollen counter is a technician who measures how much pollen is in the air. Then people can plan their days.

The work starts with a special sampler on a roof. It pulls in air and traps tiny bits on a sticky strip. Every day, the technician takes the strip to a lab.

Under a microscope, the strip looks like a crowded field of dots. A pollen grain from an oak tree does not look like one from grass or ragweed. Each kind has its own shape and size. The technician learns to tell them apart. Then the technician counts the grains in a small part of the strip. Math tells how many grains were floating in a certain amount of air.

The results are shared in weather reports and on websites. They are often given as low, medium, or high. A person who sees a high count might keep the windows shut. Or the person might take an allergy medicine that a doctor has recommended.

Questions

1. What is pollen?

_____

_____

2. Where is the sampler placed?

_____

_____

3. What traps the pollen on the sampler?

_____

_____

4. How does the technician tell one kind of pollen from another?

_____

_____

5. How are the results often reported?

_____

_____

6. Why does the technician use math after counting a small part of the strip?

_____

_____

7. Why would a pollen report be useful to someone with allergies?

_____

_____

Words to know

pollen: the fine yellow dust made by flowers, trees, and grasses
allergy: a body reaction, like sneezing, to something harmless
technician: a worker with special training in a skill or tool
microscope: a tool that makes tiny things look big
sampler: a device that collects a small piece of something to study

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

The Technician Who Counts Pollen Grains

Square group

For people who have allergies, springtime can bring sneezing and itchy eyes. Pollen is the fine dust that plants release into the air, and certain people react strongly to it. A pollen counter is a technician who measures how much pollen is drifting through the air so that people can plan their days accordingly.

The work begins with a specialized sampler mounted on a rooftop. It draws in air and traps the minuscule particles on a sticky strip. Every day, the technician retrieves the strip and carries it to a laboratory.

Beneath a microscope, the strip resembles a crowded field of dots. A pollen grain from an oak tree looks nothing like one from grass or ragweed, since each variety has its own distinctive shape and size, and the technician learns to distinguish them. The technician then counts the grains in a small portion of the strip and applies mathematics to estimate how many grains were floating in a given volume of air.

The results are shared through weather reports and websites, frequently as low, medium, or high. Someone who learns that the count is high might decide to keep the windows closed or to take an allergy medicine that a doctor has recommended.

Questions

1. What is pollen?

_____

_____

2. Where is the sampler mounted?

_____

_____

3. What traps the pollen on the sampler?

_____

_____

4. How does the technician distinguish one kind of pollen from another?

_____

_____

5. How are the results frequently reported?

_____

_____

6. Why does the technician apply mathematics after counting a small portion of the strip?

_____

_____

7. Why would a pollen report be valuable to someone with allergies?

_____

_____

Words to know

pollen: the fine yellow dust made by flowers, trees, and grasses
allergy: a body reaction, like sneezing, to something harmless
technician: a worker with special training in a skill or tool
microscope: a tool that makes tiny things look big
sampler: a device that collects a small piece of something to study

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: The Technician Who Counts Pollen Grains

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: The Technician Who Counts Pollen Grains

Easier · 184 words · Flesch-Kincaid grade 3.3

1. A tiny dust that plants send into the air.
2. On a roof.
3. A sticky strip.
4. By the shape and size of each grain under a microscope.
5. As low, medium, or high.
6. Counting every grain would take too long, so a small count is used to find the total.
7. It tells them when to stay in or get ready.

Triangle: The Technician Who Counts Pollen Grains

This passage · 193 words · Flesch-Kincaid grade 4.5

1. The tiny dust that plants release into the air.
2. On a roof.
3. A sticky strip.
4. By looking at each grain's shape and size under a microscope.
5. As low, medium, or high.
6. Counting every grain would take too long, so the count from one part is used to figure out the total in the air.
7. It lets them know when to stay inside or get ready before they go out.

Square: The Technician Who Counts Pollen Grains

Harder · 204 words · Flesch-Kincaid grade 9.5

1. The fine dust that plants release into the air.
2. On a rooftop.
3. A sticky strip.
4. By the distinctive shape and size of each grain under a microscope.
5. As low, medium, or high.
6. Counting every grain would take far too long, so the small count is used to estimate the total in the air.
7. It tells them when to stay inside or prepare before they go out.