Name: _____ Date: _____

The Kangaroo Rat Who Never Needs a Drink

Circle group

In the deserts of North America, rain may not fall for months. Yet a small animal called the kangaroo rat lives there year after year. It rarely, if ever, takes a drink. How does it do it?

The first answer is food. The kangaroo rat eats mostly dry seeds. Dry seeds hold very little water. But when an animal digests food, its body makes a small amount of water. The kangaroo rat uses this water well. The faint water in its seeds and the water its body makes are enough.

The second answer is saving water. Its kidneys work very well. Its waste is strong and holds very little water. It has no sweat glands, so it does not lose water to cool off. It also holds back some of the water in each breath.

The third answer is what it does. The kangaroo rat stays out of the heat of the day. It rests in a burrow where the air is cooler and damper. Some plug the door with soil to keep the damp air in. It comes out only at night to look for seeds. It bounds on long back legs with its tail trailing.

Together, these habits make a dry desert a good home.

Questions

1. What does the kangaroo rat mostly eat?

_____

_____

2. Where does it get the water it needs?

_____

_____

3. What do its kidneys do?

_____

_____

4. When does the kangaroo rat come out to look for food?

_____

_____

5. Why does staying in a burrow by day help?

_____

_____

6. Why does the passage give three answers?

_____

_____

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 Kangaroo Rat Who Never Needs a Drink

Triangle group

In the deserts of North America, rain may not fall for months. Yet a small animal called the kangaroo rat lives there year after year, and it rarely, if ever, takes a sip of water. How does it manage?

The first part of the answer is its food. The kangaroo rat eats mostly dry seeds, which contain very little moisture. But whenever an animal digests food, its body produces a small amount of water as a by-product. The kangaroo rat makes the most of this supply. Along with the faint moisture in its seeds, that internal water is enough to keep it going.

The second part is careful saving. Kangaroo rats have unusually efficient kidneys, so their waste is very concentrated and little water is lost. They also have no sweat glands to waste moisture on cooling off, and they breathe in a way that holds back some of the water vapor from each breath.

The third part is behavior. Kangaroo rats stay out of the heat of the day. They spend those hours in a burrow, where the air is cooler and more humid, and some plug the entrance with soil to keep the moisture in. They come out only at night to search for seeds, bounding along on long hind legs with their tails trailing behind.

Together, these habits turn one of the driest places on the continent into a comfortable home.

Questions

1. What does the kangaroo rat mostly eat?

_____

_____

2. Where does the animal get the water it needs?

_____

_____

3. What do the kangaroo rat's efficient kidneys do?

_____

_____

4. When do kangaroo rats come out to look for food?

_____

_____

5. Why does staying in a burrow during the day help the animal?

_____

_____

6. Why does the passage describe three separate parts of the answer?

_____

_____

Words to know

by-product: something extra that is made while making something else
efficient: able to work well without wasting anything
concentrated: strong because there is very little water mixed in
vapor: tiny drops or gas that float in the air
humid: having a lot of moisture in the air

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 Kangaroo Rat Who Never Needs a Drink

Square group

In the deserts of North America, months may pass without a single drop of rain. Even so, a small animal called the kangaroo rat lives there year after year, and it rarely, if ever, takes a sip of water. How does it manage such a feat?

The first part of the explanation concerns its food. The kangaroo rat eats mostly dry seeds, which contain very little moisture. Whenever an animal digests its meals, however, the body produces a small quantity of water as a by-product, and the kangaroo rat makes the most of this internal supply. Combined with the faint moisture in the seeds themselves, it is enough to sustain the animal.

The second part is meticulous conservation. Kangaroo rats possess unusually efficient kidneys, so their waste is highly concentrated and very little water is lost. They lack sweat glands that would waste moisture on cooling off, and their breathing is arranged so that some of the water vapor in each breath is held back.

The third part is behavior. Kangaroo rats avoid the heat of the day, spending those hours in a burrow where the air is cooler and more humid, and some of them plug the entrance with soil to keep the moisture inside. They emerge only at night to search for seeds, bounding along on long hind legs with their tails trailing behind.

Taken together, these habits transform one of the driest places on the continent into a comfortable home.

Questions

1. What does the kangaroo rat mostly eat?

_____

_____

2. How does the animal obtain the water it needs?

_____

_____

3. What is the effect of the kangaroo rat's efficient kidneys?

_____

_____

4. When do kangaroo rats emerge to search for food?

_____

_____

5. Why does spending the day in a burrow benefit the animal?

_____

_____

6. Why does the passage describe the answer in three separate parts?

_____

_____

Words to know

by-product: something extra that is made while making something else
efficient: able to work well without wasting anything
concentrated: strong because there is very little water mixed in
vapor: tiny drops or gas that float in the air
humid: having a lot of moisture in the air

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 Kangaroo Rat Who Never Needs a Drink

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

Circle: The Kangaroo Rat Who Never Needs a Drink

Easier · 207 words · Flesch-Kincaid grade 3.1

1. Dry seeds.
2. From a little water in seeds and from water its body makes when it digests food.
3. They make waste strong so little water is lost.
4. At night.
5. The air is cooler and damper, so the animal loses less water.
6. One trick is not enough; food, saving water and habits all work together.

Triangle: The Kangaroo Rat Who Never Needs a Drink

This passage · 235 words · Flesch-Kincaid grade 6.5

1. Dry seeds.
2. From the small amount in seeds and the water its body makes while digesting food.
3. They make waste very concentrated so little water is lost.
4. At night.
5. The air is cooler and more humid there, so the animal loses less water.
6. No single trick is enough; food, saving water and behavior all work together.

Square: The Kangaroo Rat Who Never Needs a Drink

Harder · 244 words · Flesch-Kincaid grade 8.6

1. Dry seeds.
2. From the faint moisture in seeds and the water its body produces while digesting food.
3. Its waste is highly concentrated, so very little water is lost.
4. Only at night.
5. The air there is cooler and more humid, so the animal loses less water.
6. No single trick would be enough; food, conservation and behavior all work together.