Name: _____ Date: _____

# How a Desert Spring Makes an Oasis

Circle group

Picture a long walk over dry sand. Then you see green palm trees. That is an oasis. It is a place in the desert where water comes to the surface. It looks like magic, but the water has a long story.

Most of the water fell as rain, often far away. In places with mountains, rain and melting snow soak into the ground. They sink into layers of sand and rock that hold water, like a hard sponge. These layers are called aquifers. Water moves slowly through them, sometimes for many miles and many years. It flows downhill under the ground.

An oasis forms where the hidden water reaches the surface. Maybe a crack in the rock lets it rise. Maybe the ground dips low enough to meet the water table, the top edge of the underground water. The water bubbles up as a spring, or people dig a shallow well.

When water is there, life gathers. Date palms grow, and their shade helps smaller plants. Birds and insects come. For centuries, desert travelers planned trips from one oasis to the next. Villages grew where the water was safe to count on.

Today people sometimes pump water out faster than rain can refill it. Careful use helps an oasis stay green.

## Questions

**1. What is an oasis?**

_____

_____

**2. What are aquifers?**

_____

_____

**3. Where did most of the water first come from?**

_____

_____

**4. What is the water table?**

_____

_____

**5. Why did travelers plan trips from one oasis to the next?**

_____

_____

**6. Why does careful water use matter for an oasis today?**

_____

_____

## Words to know

oasis: a green place in a desert where water is found
aquifers: underground layers of rock or sand that hold water
spring: a place where water flows out of the ground
refill: to fill up again

## 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: _____

# How a Desert Spring Makes an Oasis

Triangle group

Imagine walking for hours across dry sand and then seeing a patch of green palm trees. That patch is an oasis, a place in the desert where water comes to the surface. It looks like magic, but the water has a long story.

Most of an oasis's water fell as rain, often far away. In a place with mountains, rain and melting snow soak into the ground and sink into layers of sand and rock that hold water, like a hard sponge. These layers are called aquifers. Water moves slowly through them, sometimes for many miles and many years, always flowing downhill underground.

An oasis appears where this hidden water reaches the surface. Maybe a crack in the rock lets it rise, or maybe the ground dips low enough to meet the water table, the upper edge of the underground water. The water bubbles up as a spring or can be reached by a shallow well.

Once water is there, life gathers around it. Date palms grow, and their shade protects smaller plants. Birds and insects arrive. For centuries, travelers crossing the desert planned their routes from one oasis to the next, and villages grew where the water was dependable.

Today people pump water from some aquifers faster than rain can refill them, so careful use matters if an oasis is to stay green.

## Questions

**1. What is an oasis?**

_____

_____

**2. What are aquifers?**

_____

_____

**3. Where did most of an oasis's water first come from?**

_____

_____

**4. What is the water table?**

_____

_____

**5. Why did travelers plan their routes from one oasis to the next?**

_____

_____

**6. Why does careful water use matter for an oasis today?**

_____

_____

## Words to know

oasis: a green place in a desert where water is found
aquifers: underground layers of rock or sand that hold water
spring: a place where water flows out of the ground
dependable: able to be counted on
refill: to fill up again

## 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: _____

# How a Desert Spring Makes an Oasis

Square group

Imagine trudging for hours across dry, shimmering sand and then glimpsing a cluster of green palm trees. That cluster is an oasis, a place in the desert where water emerges at the surface. It seems almost like magic, but the water has a remarkably long history.

Most of an oasis's water fell as rain, frequently in a region far away. In mountainous country, rain and melting snow soak into the ground and sink into layers of sand and rock that hold water, rather like a hard sponge. These layers are called aquifers. Water travels slowly through them, sometimes for many miles and many years, always flowing downhill beneath the ground.

An oasis appears wherever this concealed water reaches the surface. Perhaps a crack in the rock allows it to rise, or perhaps the ground dips low enough to meet the water table, the upper edge of the underground water. The water then bubbles up as a spring, or it can be reached by digging a shallow well.

Once water is present, life gathers around it. Date palms grow, and their shade shelters smaller plants. Birds and insects arrive. For centuries, travelers crossing the desert planned their routes from one oasis to the next, and villages developed wherever the water was dependable.

Nowadays people sometimes pump water from an aquifer faster than rain can refill it, so careful use is essential if an oasis is to remain green.

## Questions

**1. What is an oasis?**

_____

_____

**2. What are aquifers?**

_____

_____

**3. Where did most of an oasis's water originally come from?**

_____

_____

**4. What is the water table?**

_____

_____

**5. Why did travelers plan their routes from one oasis to the next?**

_____

_____

**6. Why is careful water use essential for an oasis today?**

_____

_____

## Words to know

oasis: a green place in a desert where water is found
aquifers: underground layers of rock or sand that hold water
spring: a place where water flows out of the ground
dependable: able to be counted on
refill: to fill up again

## 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: How a Desert Spring Makes an Oasis

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

### Circle: How a Desert Spring Makes an Oasis

Easier · 211 words · Flesch-Kincaid grade 3.8

1. A place in the desert where water comes to the surface.
2. Layers of sand and rock that hold water underground.
3. Rain and melting snow, often far away.
4. The top edge of the underground water.
5. Oases gave them water where there was very little.
6. If people pump water out faster than rain refills it, the oasis can dry up.

### Triangle: How a Desert Spring Makes an Oasis

This passage · 224 words · Flesch-Kincaid grade 6.4

1. A place in the desert where water comes to the surface.
2. Layers of sand and rock that hold water underground.
3. Rain and melting snow, often far away.
4. The upper edge of the underground water.
5. The oases gave them water in a place that otherwise had very little.
6. If people pump out water faster than rain refills it, the oasis can dry up.

### Square: How a Desert Spring Makes an Oasis

Harder · 237 words · Flesch-Kincaid grade 8.2

1. A place in the desert where water emerges at the surface.
2. Layers of sand and rock that hold water underground.
3. Rain and melting snow, often in a region far away.
4. The upper edge of the underground water.
5. The oases supplied water in a place that otherwise had very little.
6. If water is pumped out faster than rain refills it, the oasis can dry up.