Name: _____ Date: _____

A Lake Hidden on the Sea Floor

Circle group

Some lakes are not on land. They are on the bottom of the sea. Scientists call them brine pools. A brine is water that is much saltier than seawater.

Deep in the ground, there is salt. Water melts the salt and leaks up through the sea floor. This salty water is heavy. It does not mix with the sea. It sinks into a dip and fills it up, like a bowl. The top of the pool is sharp and clear. It can look like the shore of a lake, with ripples at the edge.

A brine pool is a hard place to live. It has too much salt and too little oxygen. Most sea animals cannot live in it. But tiny living things called microbes do well there. Some eat chemicals that leak from the ground. Mussels have been found along the edges of some pools.

Ships and small underwater machines with cameras found the pools. The pools show that the deep sea still holds surprises.

Questions

1. What is a brine?

_____

_____

2. Why does the salty water stay in a dip?

_____

_____

3. What makes a brine pool look like a lake?

_____

_____

4. Why can most sea animals not live in a brine pool?

_____

_____

5. Where have mussels been found?

_____

_____

6. What do the pools show about the deep sea?

_____

_____

Words to know

brine: water that is much saltier than the sea
microbes: living things too small to see without help

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: _____

A Lake Hidden on the Sea Floor

Triangle group

Some of the strangest lakes on Earth are not on land at all. They sit on the bottom of the ocean, hidden far below the waves. Scientists call them brine pools. A brine is water that is much saltier than ordinary seawater.

A brine pool begins when water dissolves salt that is buried deep in the rock and then seeps up through the sea floor. This salty water is heavier than the seawater above it, so the two do not mix. Instead the brine sinks into a dip in the sea floor and fills it, the way a bowl fills with water. The top of the pool is sharp and clear. From a distance it can look like the shore of a real lake, with ripples along its edge.

A brine pool is a hard place to live. The water holds so much salt and so little oxygen that most sea animals cannot survive inside it. Yet tiny living things called microbes can thrive there, and some of them feed on chemicals that leak from the ground. Mussels have been found living along the edges of some pools, where the brine meets the ordinary sea.

Brine pools were discovered by research ships and by small underwater vehicles that carry cameras into the dark. Each pool is a reminder that the deep ocean still holds surprises, and that scientists have a great deal left to learn.

Questions

1. What is a brine?

_____

_____

2. Why does the salty water stay in a dip instead of mixing with the sea?

_____

_____

3. What makes a brine pool look like a real lake?

_____

_____

4. Why can most sea animals not live inside a brine pool?

_____

_____

5. Where have mussels been found near some brine pools?

_____

_____

6. Why does the author say the deep ocean still holds surprises?

_____

_____

Words to know

brine: water that is much saltier than the sea
seeps: flows out slowly through small openings
microbes: living things too small to see without help
thrive: to grow and do very well
research: careful study to find out new facts

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: _____

A Lake Hidden on the Sea Floor

Square group

Some of the most remarkable lakes on Earth are not found on land at all. They rest on the floor of the ocean, concealed far beneath the waves. Scientists call them brine pools, and a brine is water that contains far more salt than ordinary seawater does.

A brine pool begins when water dissolves salt that lies buried deep inside the rock and then seeps upward through the sea floor. Because this salty water is denser than the seawater above it, the two liquids refuse to blend. Instead, the brine collects in a hollow in the sea floor and fills it, much as a bowl fills with water. The surface of the pool is sharp and clear, and from a distance it can resemble the shoreline of a genuine lake, complete with ripples along its edge.

A brine pool is an extremely difficult place to live. The water holds so much salt and so little oxygen that most sea animals cannot survive inside it. Nevertheless, microscopic living things called microbes can thrive there, and some of them feed on chemicals that leak out of the ground. Mussels have even been found living along the edges of certain pools, where the brine meets the ordinary sea.

Brine pools were discovered by research ships and by small underwater vehicles that carry cameras into the darkness. Every pool is a reminder that the deep ocean still holds many surprises, and that scientists have a great deal left to learn.

Questions

1. What is a brine?

_____

_____

2. Why does the salty water collect in a hollow instead of blending with the sea?

_____

_____

3. What gives a brine pool the appearance of a genuine lake?

_____

_____

4. Why can most sea animals not survive inside a brine pool?

_____

_____

5. Where have mussels been found living near certain pools?

_____

_____

6. What does the ending suggest about future discoveries in the deep ocean?

_____

_____

Words to know

brine: water that is much saltier than the sea
seeps: flows out slowly through small openings
microbes: living things too small to see without help
thrive: to grow and do very well
research: careful study to find out new facts

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: A Lake Hidden on the Sea Floor

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

Circle: A Lake Hidden on the Sea Floor

Easier · 166 words · Flesch-Kincaid grade 2

1. Water that is much saltier than seawater.
2. It is heavy, so it does not mix with the sea.
3. Its top is clear, with ripples at the edge like a shore.
4. It has too much salt and too little oxygen.
5. Along the edges of some pools.
6. It still holds surprises, so there may be more to find.

Triangle: A Lake Hidden on the Sea Floor

This passage · 235 words · Flesch-Kincaid grade 5.7

1. Water that is much saltier than ordinary seawater.
2. It is heavier than the seawater above it.
3. Its top is sharp and clear, with ripples along an edge like a shore.
4. The water has too much salt and too little oxygen.
5. Along the edges of the pools.
6. People only found these pools after ships and cameras went down, so other discoveries may be waiting.

Square: A Lake Hidden on the Sea Floor

Harder · 246 words · Flesch-Kincaid grade 8.3

1. Water that contains far more salt than ordinary seawater.
2. It is denser than the seawater above it.
3. Its sharp, clear surface and ripples along an edge like a shoreline.
4. The water holds too much salt and too little oxygen.
5. Along the edges, where the brine meets the ordinary sea.
6. These pools were found only once ships and cameras went down, so more surprises may be waiting.