Name: _____ Date: _____

The Chalky Pot That Shines After the Kiln

Circle group

A potter paints a bowl with glaze. The bowl looks dull and chalky. The color is pale. It does not shine. Then the potter puts the bowl in a kiln. A kiln is a very hot oven for clay. When the bowl comes out, it is shiny and bright.

What happened? Glaze is tiny bits of minerals and water. On the clay, the bits sit like dust. In the kiln, the heat melts them. They turn into a thin coat of glass. It stays on the clay when it cools.

The coat does two jobs. It gives color and shine. It also seals the clay. Plain clay has tiny holes. It can soak up water. Glass keeps a mug from leaking.

Potters make small test tiles. Glaze in the bucket does not look like glaze after the fire.

Questions

1. How does the glazed bowl look before the kiln?

_____

_____

2. What is a kiln?

_____

_____

3. What happens to the bits in the heat?

_____

_____

4. What two jobs does the glass coat do?

_____

_____

5. Why is a mug without glaze a poor choice?

_____

_____

6. Why do potters make test tiles?

_____

_____

Words to know

glaze: a glassy coating put on pottery
kiln: an oven that gets hot enough to bake clay
minerals: natural materials found in rocks and earth
seals: closes up so nothing can get through

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 Chalky Pot That Shines After the Kiln

Triangle group

A potter paints a bowl with glaze, and the bowl looks dull and chalky. The color is pale, and it does not shine at all. Many beginners worry that the colors are wrong. Then the potter puts the bowl in a kiln, which is a very hot oven made for clay. When it comes out again, the bowl looks like a different thing. It is glossy, smooth, and bright.

What happened? Glaze is a mix of tiny bits of minerals and water. When it is painted on, the minerals sit on the clay like a thin layer of dust. In the kiln, the heat becomes so strong that those bits melt together. The mix turns into a thin coat of glass. When it cools, the glass stays on the clay.

The coat does two jobs. First, it gives the pot color and shine. Second, it seals the clay. Plain baked clay has tiny holes and can soak up water. A glassy skin keeps drinks from seeping through the sides of a mug.

Potters learn to guess how a glaze will turn out. They also keep small test tiles, because the colors in the bucket rarely look like the colors that come out of the fire.

Questions

1. How does a glazed bowl look before it goes into the kiln?

_____

_____

2. What is a kiln?

_____

_____

3. What happens to the bits of mineral in the heat?

_____

_____

4. What are the two jobs of the glaze coat?

_____

_____

5. Why would a mug without glaze be a poor choice for a drink?

_____

_____

6. Why do potters keep small test tiles?

_____

_____

Words to know

glaze: a glassy coating put on pottery
kiln: an oven that gets hot enough to bake clay
minerals: natural materials found in rocks and earth
seals: closes up so nothing can get through

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 Chalky Pot That Shines After the Kiln

Square group

A potter brushes glaze onto a bowl, and the bowl looks dull and chalky. The color is pale, and there is no shine whatsoever. Many beginners worry that they have chosen the wrong colors. Then the potter loads the bowl into a kiln, a very hot oven built especially for clay. When the bowl is finally taken out, it appears to be an entirely different object, glossy, smooth, and bright.

What has happened? Glaze is a mixture of tiny bits of minerals and water. While it is being painted on, the minerals rest on the clay like a thin layer of dust. Inside the kiln, the heat grows so intense that those bits melt together and become a thin coat of glass. When the pot cools, the glass stays fixed to the clay.

The coat performs two jobs. First, it gives the pot its color and shine. Second, it seals the clay. Plain baked clay is full of tiny holes and can soak up water, but a glassy skin prevents drinks from seeping through the sides of a mug.

Potters learn to predict how a glaze will turn out. They also save small test tiles, because the colors in the bucket seldom resemble the colors that emerge from the fire.

Questions

1. How does a glazed bowl appear before it is placed in the kiln?

_____

_____

2. What is a kiln?

_____

_____

3. What do the bits of mineral do in the intense heat?

_____

_____

4. What two jobs does the glaze coat perform?

_____

_____

5. Why would a mug with no glaze be a poor choice for drinks?

_____

_____

6. Why do potters save small test tiles?

_____

_____

Words to know

glaze: a glassy coating put on pottery
kiln: an oven that gets hot enough to bake clay
minerals: natural materials found in rocks and earth
seals: closes up so nothing can get through

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 Chalky Pot That Shines After the Kiln

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

Circle: The Chalky Pot That Shines After the Kiln

Easier · 138 words · Flesch-Kincaid grade 0.8

1. Dull, chalky, and pale.
2. A very hot oven for clay.
3. They melt and turn into glass.
4. It gives color and shine, and it seals the clay.
5. Plain clay has tiny holes and soaks up water.
6. Glaze looks different before the fire, so a tile shows how it will turn out.

Triangle: The Chalky Pot That Shines After the Kiln

This passage · 205 words · Flesch-Kincaid grade 3

1. Dull, chalky, and pale.
2. A very hot oven made for clay.
3. They melt together and turn into a thin coat of glass.
4. It gives color and shine, and it seals the clay.
5. Plain clay has tiny holes and can soak up water, so liquid could seep through.
6. The color of wet glaze does not match the finished color, so a tile shows them how it will turn out.

Square: The Chalky Pot That Shines After the Kiln

Harder · 210 words · Flesch-Kincaid grade 5.2

1. Dull, chalky, and pale.
2. A very hot oven built for clay.
3. They melt together and become a thin coat of glass.
4. It gives color and shine, and it seals the clay.
5. Plain clay is full of tiny holes and can soak up water, so liquid could seep through.
6. The color of wet glaze does not match the finished color, so a tile shows how it will turn out.