

## **Coal Flowers**

Revised Version by Women in Mining  
(Original Source Unknown)

### ***Purpose:***

To acquaint your students with a quick way of crystal growing.

### ***Materials Needed:***

Shallow, glass bowl	Salt
Coal	Laundry bluing
Glue	Water
Twigs or toothpicks	Ammonia
Paper towels	Food coloring
Sting/small pieces of cloth	Small paper cups

### ***Activity Instructions:***

1. In a shallow, glass bowl place several small lumps of coal.
2. Interwork twigs, toothpicks, paper, and/or cloth with coal. You may select all or just some of the items. You may need to use glue to hold the twigs and/or toothpicks to the coal.
3. In a separate cup mix:

6 Tblsp. salt	6 Tblsp. water
6 Tblsp. laundry bluing	1 Tblsp. ammonia
4. Pour the mixture over the coal mound.
5. Sprinkle dots of food coloring randomly over the mound.
6. Crystals will begin to form within several hours.

### ***Worksheet:***

Have students fill out and turn in worksheet.

### ***Evaluation:***

What did the crystals form on first? Was there something they did not form on at all? What effect do you think temperature would have on the crystal formation?

### ***Tip:***

If your grocery store does not carry laundry bluing, check with the local pharmacist.

## Coal Flower Worksheet

Items placed in bowl along with coal:

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Time Started: \_\_\_\_\_

Time Ended: \_\_\_\_\_

Temperature: \_\_\_\_\_

Where did crystals first appear? \_\_\_\_\_

Items crystals completely covered?

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Items crystals did not appear on?

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What colors were most vivid?

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What other items might be used?

What effect do you think the temperature of the area the bowl was located in have on the crystal growing?

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Why? \_\_\_\_\_

Check crystals about every two hours to note observations.

NOTE: In colder weather, the crystals grow slower and colors are not as vivid due to evaporation time.