

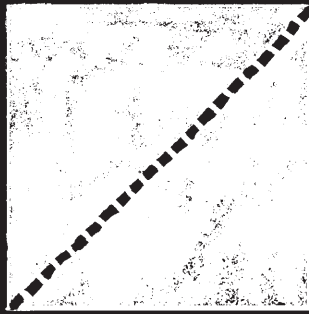


Activity Kit

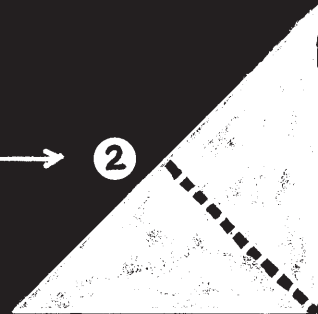
By Carolyn Fisher

MAKE a SNOWFLAKE

1



2



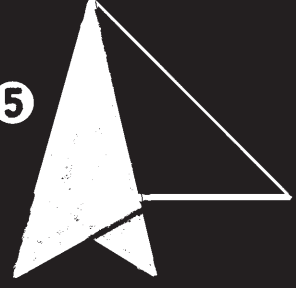
3



4



5



6



7



8



The SNOW SHOW

Activity Kit

By Carolyn Fisher

What's **WRONG** with this picture? Circle the things that don't belong. Then draw in some strange details of your own.

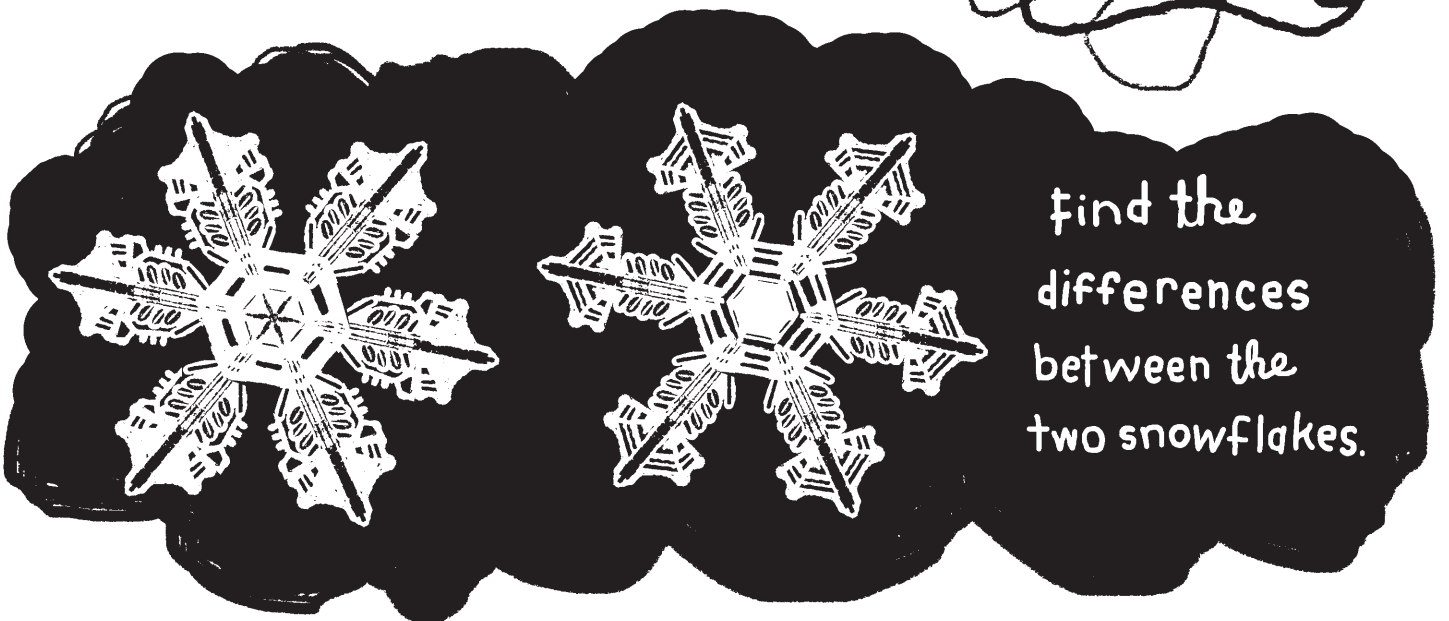




Activity Kit

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MITTEN MIX-UP *Which string is tied to BOTH mittens?*



find the differences between the two snowflakes.



Activity Kit

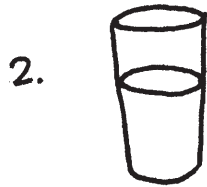
By Carolyn Fisher

Phase changes

Is this water solid, liquid, or gas?



The sea



Glass of water



Cloud



Invisible vapor



Ice cubes



Snow crystals



Leaky faucet



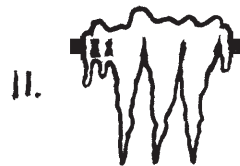
Rain



Puddle



Snowman



Icicles



12.




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By Carolyn Fisher

GLOSSARY

Condensation nucleus: a fleck of ice or dust that bumps into a water vapor molecule and triggers condensation from invisible vapor (gas) into water (liquid)

Cloud:  a bunch of tiny floating water or ice drops

Crystal: a special symmetrical stack of molecules.  A six-sided snow crystal forms when an invisible water vapor molecule bumps into a fleck of ice or dust at a temperature below 0°C (32°F) and changes by deposition into ice

Frost: ice crystals that form on the ground (e.g. on grass or on a window) by deposition.

Hexagon: A symmetrical six-sided shape, like a stop sign. 

Freezing nucleus: A fleck of ice or dust that bumps into a water droplet and triggers freezing, so the water droplet turns into ice.

Supercooling: occurs when a water droplet is chilled to a sub-freezing temperature (below 0°C or 32°F), but remains liquid because it hasn't bumped into a freezing nucleus

Precipitation: Any form of water – liquid or solid – that falls from the sky to the ground. Precipitation includes:

Snow: Ice crystals that form by deposition.

Rain: Liquid water drops

Sleet: Frozen water drops

Hail: occurs when a frozen rain droplet encounters supercooled water droplets. The frozen rain droplet acts as a freezing nucleus. Supercooled water instantly coats the ice seed with a layer of ice. After many ice layers have built up, the hailstone falls from the sky.





Activity Kit



By Carolyn Fisher

WORD SCRAMBLE:


Unscramble the following words:

NAPTIERAVOO → _____  → 



When water turns from liquid to invisible water vapor (a gas).
(Hint: add heat.)

TIONOCENDSA → _____  → 



When invisible water vapor (a gas) turns to liquid.
(Hint: take away heat.)

TIOPITRECIPAN → _____ 



When water- solid or liquid- falls from the sky to the ground.

SITOPEDION → _____  → 



When invisible water vapor (a gas) turns directly into ice (a solid).
(Hint: take away heat.)

ZINGEREF → _____  → 

When a liquid (for example, water) becomes colder than 0°C (32°F) and turns into a solid (for example, ice).

LIMBUSTIANO → _____  → 

When solid water (ice) turns directly to invisible water vapor (a gas).

GLEMTIN → _____  → 

When a solid (like ice) turns into a liquid (like water).

Answers found in THE SNOW SHOW, on the DELETED SCENES page, under PHASE CHANGES.



Activity Kit

By Carolyn Fisher

SNOW CRYSTAL SHAPES

Identify the snow crystal shapes. Then color in the thermometer to show the temperature ranges in which the snow crystals form.

1. R T

2. L

3. E E

4. L L L

5. N T

6. H L

Answers found in THE SNOW SHOW, on the SNOW CRYSTAL SHAPES chart.



Activity Kit

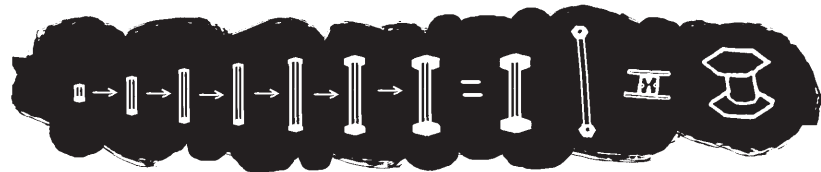
By Carolyn Fisher

Bonus SNOW CRYSTALS: Identify the snow crystal shapes.

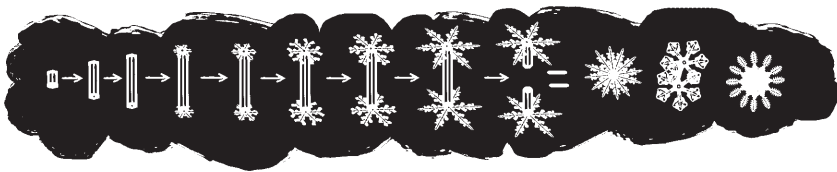
1. LY : composed of several crystals growing in all directions.



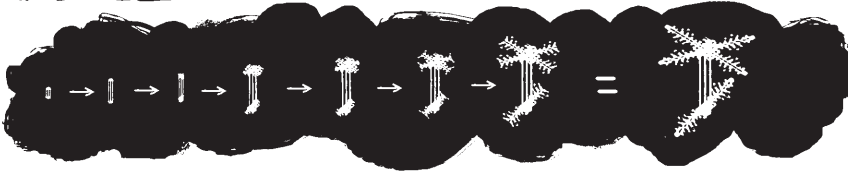
2. PP MN



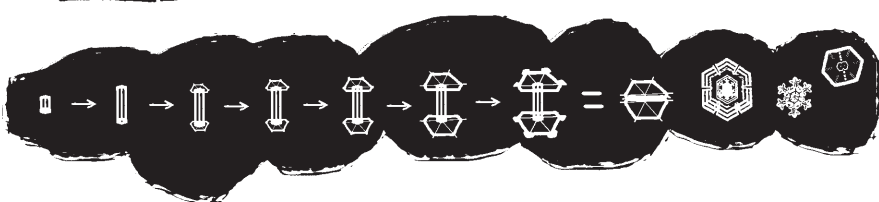
3. BL AR



4. PL T S



5. P T L E



Answers found in THE SNOW SHOW, on BLOOPERS page, under BONUS SNOW CRYSTALS.

6. IA
T :

A polycrystal made up of plates.



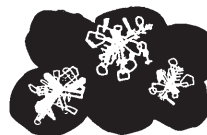
7. NG
ND

A polycrystal made up of dendrites.

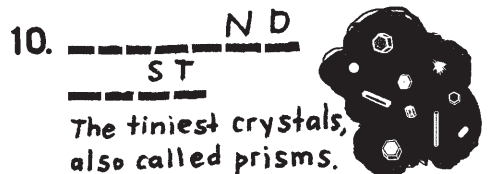


8. LL

9. RR
Imperfect and broken crystals.



10. ND
ST
The tiniest crystals, also called prisms.



11. CT L

Stellar plates that are divided into wedges, like pieces of pie.



12. TR
YS





Activity Kit

By Carolyn Fisher

ANSWER KEY

Phase changes

1. Liquid
2. Liquid
3. Gas
4. Gas
5. Solid
6. Solid
7. Liquid
8. Liquid
9. Liquid
10. Solid
11. Solid
12. Gas

WORD SCRAMBLE:

- NAPTIERAVOO = EVAPORATION
TIONOCENNSA = CONDENSATION
TIOPITRECIPAN = PRECIPITATION
SITOPEDION = DEPOSITION
ZINGEREF = FREEZING
LIMBUSTIANO = SUBLIMATION
GLEM TIN = MELTING

Snow CRYSTAL SHAPES

1. STELLAR DENDRITES
-2°C, -15°C
2. COLUMNS
-5°C to -8°C, < -22°C
3. NEEDLES
-5°C
4. STELLAR PLATES
-2°C, -15°C
5. THIN PLATES
-2°C, -10°C to -22°C
6. THICK PLATES
< -10°C

Bonus SNOW CRYSTALS:

1. POLYCRYSTALS
2. CAPPED COLUMNS
3. DOUBLE STARS
4. SPLIT STARS
5. SPLIT PLATES
6. RADIATING PLATES
7. RADIATING DENDRITES
8. BULLETS
9. IRREGULARS
10. DIAMOND DUST
11. SECTORED PLATES
12. TRIANGULAR CRYSTALS