

DATE:

NAME:

CLASS:

TOPIC 4

VOCABULARY CHECK

Expansion and Contraction

BLM 3-14

Goal • Learn key terms related to the expansion and contraction of matter.

What to Do

Complete the word search by finding all the words listed below. Circle each word you find.

CHANGES

CONTRACT

EXPAND

FASTER

GASES

LIQUIDS

MASS

MATTER

MOVE

PARTICLES

PHASES

SHRINK

SLOWER

SOLIDS

STATES

STRETCH

TEMPERATURE

VOLUME

P	H	A	S	E	S	R	E	W	O	L	S
A	D	K	H	S	V	S	E	S	A	G	H
T	N	V	R	E	S	O	L	I	D	S	C
T	A	G	I	L	T	Q	L	J	P	M	T
R	P	N	N	C	C	U	T	U	O	D	E
A	X	O	K	I	H	C	A	V	M	K	R
C	E	R	U	T	A	R	E	P	M	E	T
T	U	T	C	R	N	X	E	B	T	L	S
I	Q	S	T	A	G	S	E	T	A	T	S
O	Y	N	H	P	E	F	A	N	S	R	I
N	O	M	A	S	S	M	V	W	E	A	K
C	E	G	L	I	Q	U	I	D	S	G	F

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TOPIC 4
PROBLEM SOLVING

BLM 3-11

Solids Expanding and Contracting in Our Daily Lives

Goal • Apply the concept of expanding and contracting solids to everyday situations.

Think About It

Solids expand when their temperature increases, and contract when their temperature decreases.

What to Do

Answer the following questions in the space provided.

1. Why is it important to place gaps at regular intervals in sidewalks?

2. Steel bolts used to connect things together are sometimes heated and put in place while they are still hot. Why?

3. Concrete and steel expand at almost the same rate. Explain why this is important in the construction of tall buildings.

Gases Expanding and Contracting in Our Daily Lives

Goal • Apply the concept of expanding and contracting gases to everyday situations.

Think About It

Gases expand when their temperature increases, and contract when their temperature decreases.

What to Do

Answer the following questions in the space provided.

1. Explain how a hot air balloon is lifted from the ground.

2. In the space below, draw a diagram of the balloon rising into the air. Include arrows to show how the gas particles are moving in and around the balloon.

3. When the balloon is up in the air, the burner is turned off and the balloon drifts along with the wind. What will eventually happen to the air inside the balloon?

Liquids Expanding and Contracting in Our Daily Lives

Goal • Apply the concept of expanding and contracting liquids to everyday situations.

Think About It

Liquids expand when their temperature increases, and contract when their temperature decreases.

What to Do

Answer the following questions in the space provided.

1. A bowl of hot soup was left on the table to cool. After a few minutes, the amount of soup in the bowl appeared to have decreased. Why?

2. When manufacturers pack liquids into bottles and jars, they leave a small space at the top before putting on the lids. Why?

3. Mercury expands and contracts faster than alcohol. Which liquid would be better in a thermometer. Why?
