

# THE STORY OF WHIPPLE HILL

Names \_\_\_\_\_

Date \_\_\_\_\_



## STOP 1: PARKING LOT AREA

### 1A. ROCK WALL

**Observe** the rocks in the wall. Tell whether you agree or disagree.

Agree   Disagree   (check one)

\_\_\_\_\_   \_\_\_\_\_   All rocks in the wall are the exactly the same type.

\_\_\_\_\_   \_\_\_\_\_   Some crystals are visible in the rocks.

\_\_\_\_\_   \_\_\_\_\_   Rocks in the wall vary in color—some are light and some are dark.

\_\_\_\_\_   \_\_\_\_\_   Sharp-edged rocks are mostly light in color in the wall; rounded rocks in the wall are mostly dark.

Find the rock in the wall with cracks and reddish brown patches. Water and air has caused parts of the rock to change to powdery rust. Geologists call a process that helps to break a rock down into smaller pieces: **W \_ \_ T H \_ R \_ N G**

### 1B. SOIL

Measure the depth of the soil in the woods in several locations. Note your measurements below. If the stick goes in all the way, say “deeper than...”

Depth of soil: \_\_\_\_\_ inches

What soil particles do you recognize? How does your team think these particles get into the soil?

\_\_\_\_\_

\_\_\_\_\_

### TREES

Look at the TOP of the trees near the rock wall. Are these trees tall or short compared to you? Draw a picture of you next to the tree.

### 1 C. CONSERVATION SIGN

Leaving litter is illegal here. Plastic and aluminum trash is a special problem because these materials do not **D \_ C O M \_ O S \_** very quickly.

## STOP 2. GOING UP THE TRAIL

What is the name of the process by which loose material like soil and small rocks is moved by water or wind?   **E R \_ S \_ \_ N**

### STOP 3: TOP OF WHIPPLE HILL

#### 3A. ROCKS AT THE TOP

Observe the solid rock at the top of the hill. Then look at the broken sample of Whipple Hill bedrock in the egg carton.

The COLOR of the bedrock (solid crust of the Earth) here is:

- \_\_\_\_\_ mostly dark
- \_\_\_\_\_ medium (approximately half dark crystals and half light)
- \_\_\_\_\_ mostly light

The SIZE of the crystals is:

- \_\_\_\_\_ big enough to see (visible)      \_\_\_\_\_ not big enough to see (not visible)

Compare Whipple Hill rock to the egg carton samples. Which rock name is the closest match?

**Rock name:** \_\_\_\_\_

**Minerals** visible in Whipple Hill bedrock (look at the VEINS IN THE BEDROCK)

---

Whipple Hill rock formed when hot liquid rock crystallized. Which rock group is it in? (Check one.)

**Igneous**

**Sedimentary**

**Metamorphic**

#### 3B. GROOVES IN THE ROCK

How do scientists explain the grooves in the bedrock near the top of Whipple Hill?

**G L \_ C \_ \_ R**

#### 3C. WHAT CAN YOU SEE? (note: no question for 3D)

Can you find all these landmarks? Use a compass. Check the ones you see:

- \_\_\_\_\_ Water towers near Lincoln Field (West)
- \_\_\_\_\_ Mt Wachusett (May not always be visible) (West)
- \_\_\_\_\_ Flagpole, town green, and steeple (West)
- \_\_\_\_\_ Radio towers near the Burlington Mall (North)

#### 3D. SOIL AND TREES ON TOP

How deep is the soil on top of Whipple Hill?

- \_\_\_\_\_ inches depth top of the hill.
- \_\_\_\_\_ inches depth foot of hill. (See 1B)

#### 3E. WHIPPLE HILL'S HIGHEST POINT

When you are standing on the top of Whipple Hill how high are you above sea level?  
\_\_\_\_\_ feet above sea level.

### STOP 4: MYSTERY BOULDER

Look at the size and shape of the large boulder by the stonewall. Suppose it is mostly large pink and white crystals inside (like the rock near the gap in the stone wall where the trail crosses it). It is hard to tell because the rock is covered with lichen. Assuming it is pink inside, how do you think this boulder got here? Talk with your team about your ideas.

- \_\_\_\_\_ A chunk of Whipple Hill rock broke off the top and rolled down the hill.
- \_\_\_\_\_ A river carried it up here.
- \_\_\_\_\_ A glacier carried it here and dropped it when the glacier melted.