

Reasoning About Non-obvious Causes

(Reinforcement Activity)

The activity sheet *Reasoning About Non-obvious Causes* asks students to analyze obvious and non-obvious causes. It serves to reinforce the concepts in the lesson and in everyday contexts. As you review the worksheet with your students, assess whether they make connections to previous lessons on air pressure.

Hand out the activity sheet, *Reasoning About Non-obvious Causes*. After students complete the activity sheet, consider the following:

- What do students consider to be possible obvious and non-obvious causes?
- Do students make connections to previous lessons on air pressure? If not, review how air pressure often acts with non-obvious effects. It is important to consider air pressure when thinking about phenomena. This is not to say that air pressure will *always* play a role; only that it *might* play a role.

Reasoning About Non-obvious Causes (Reinforcement Activity)

Name _____ Date _____

Below are some quotes from younger students. Underline places where students are reasoning about obvious causes, and circle places where they are reasoning about non-obvious causes. *Keep in mind that students may not be using the correct scientific reasons for what they think is happening!*

Stephanie, Katie, Robbie and Ryan are examining Robbie's bike that has several big areas of rust on it:

- *Robbie:* I don't know where this rust came from. Maybe it's because I left my bike outside on the grass overnight and the dew made it rust?
- *Katie:* I don't agree. You never should have taken your bike to the beach with you. That salty air rusted your bike for sure.
- *Stephanie:* I was thinking that it might be because you wrecked your bike a few months back. Maybe those are areas where the paint chipped off.
- *Ryan:* Maybe your bike has a disease or something.

Trevor and Jared are walking in the woods. They notice that a big tree has fallen and is beginning to decay.

- *Trevor:* Wow! Look at that tree. It's huge. Look, it's all rotten.
- *Jared:* Hey, there's a sow bug. Bugs must be making it decay.
- *Trevor:* Yeah, and probably worms, too.
- *Jared:* I see a mushroom growing on it. There's probably fungi inside it too.
- *Trevor:* We learned in science that microbes help to break things down. You can't see them without a microscope, though.