



## FRESHWATER STREAMS:

# What makes a healthy stream?

Complete this investigation while watching CBF's [LEARN OUTSIDE, LEARN AT HOME](#) video "Freshwater Streams." At the end of the video you will be able to answer the three investigative questions listed below.

### Investigative Questions

**1.** What would you expect to see in and around a healthy stream?

**2.** What would you expect to see in and around an unhealthy stream?

**3.** What are some ways to measure the health of a stream?

The simplest way to assess the health of a stream is to use our senses to observe its physical qualities. For example, how does the water look? Does it have smell? [See the Stream Data Worksheet \(on last page\)](#) for particular qualities to observe.

### This or that!

Let's start by contrasting the following pairs of stream photos. Notice the differences between the two photos paired together. For each set of photos, write down which stream you think is healthier and why.



**4.** Which stream appears healthier? Why?



**5.** Which stream appears healthier? Why?



**6.** Which stream appears healthier? Why?



**7.** Which stream appears healthier? Why?

### Field Observations and Questions

Learning Locally: If you can, go outside to a local stream and look around. If not, imagine a stream you have seen or been to before.

**8.** Does your local stream look like any of the photos above?

Use the [Stream Data Worksheet](#) (on last page) to determine the health of your local stream.

**9.** Describe how the stream looks.

**10.** Is the water murky or clear?

**11.** What do the sides or banks of the stream look like?

**12.** Can you find any plants or animals along the stream? If so, list what you see.

**13.** Is there evidence of human activity in or around this stream?

Write down three observations about your local stream.

1.

2.

3.

### Application Questions

**14.** Think about your neighborhood. What are the primary ways land is used where you live?

**15.** How might those land uses affect your local streams?







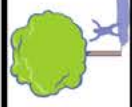







**CHESAPEAKE BAY  
FOUNDATION**  
*Saving a National Treasure*

# INVESTIGATION

**LEARN OUTSIDE | LEARN AT HOME | [CBF.ORG/LEARNATHOME](https://www.cbf.org/learnathome)**

# STREAM DATA

WHAT TO LOOK FOR...		GOOD	FAIR	POOR
POLLUTION	<b>TURBIDITY</b> <i>How clear or cloudy the water is when it is disturbed</i>	Clear 	Cloudy 	Very Cloudy 
	<b>TRASH</b> 	None	Some	Lots
	<b>CHEMICALS</b> <i>Chemicals can make the water smell strange.</i> 	Water smells like nature	Strange Mild Odor	Smells like eggs, dead fish, manure
OXYGEN	<b>RIFFLES</b> <i>"White water rapids"</i> 	Lots of them (Every 10 feet)	Few	None
	<b>WATER TEMPERATURE</b> <i>Shade cools down the water</i>	Cool Lots of Shade 	Warm Partly Shady	Too Warm Very Little Shade 
LAND AROUND THE STREAM	<b>STREAM BANK EROSION</b> <i>This looks like someone chopped at the stream bank with a shovel</i> 	None	Some	Lots
	<b>RIPARIAN BUFFER ZONE</b> <i>Trees around the stream</i>	All Trees 	Trees and some grass	Grass, dirt, few trees
SHELTER	<b>TREE DEBRIS</b> <i>Leaves, branches, and logs in the stream</i> 	None	Some	Lots
	<b>ROCKS</b> <i>Look at the bottom of the stream</i>	Rocks 	Rocks and Sediment	Just sediment 