

## Waterway Wellness Exam

### Four Key Health Indicators

Discover the four key health indicators of a waterway. Fill in the blanks with the correct word from the word bank as you compare human wellness exams to waterway wellness exams.

**Word Bank:** water quality sample, species, surfaces, family history, animal habitat, physical attributes, blood test, manages

### Health Indicator 1: Chemistry

#### Human Chemistry

A blood test can help doctors detect when a patient's chemical make-up is off or changing. This test can also measure different substances, or pollutants, found in a patient's body. For example, a blood test can be used to detect things like cancer or alcohol abuse.

#### Versus

#### Waterway Chemistry

A water quality sample can help environmental scientists detect when a waterway's chemical make-up is off or changing. A sample can help detect the presence of pollutants in a waterway that may impact the health of a stream. For example, a water quality sample may detect high levels of fertilizer, pesticides or toxic chemicals.

### Health Indicator 2: Biology

#### Human Biology

A doctor can tell a lot about a patient's health by understanding more about the patient's family history. For example, a doctor can often predict lifespan or health challenges for a patient by knowing the disorders, diseases and lifespan of a patient's family members.

#### Versus

#### Waterway Biology

An environmental scientist can tell a lot about a waterway by looking at the fish and bug species living in the water. Based on the type of species found, and the quantity of each, a scientist can identify the health of waterway. Some species can survive in more pollution than others.

### Health Indicator 3: Physical Attributes

#### Human Physical Attributes

## *Teacher's Guide*

A human exam may involve a doctor observing and charting a patient's physical attributes. A doctor will measure things like weight, height and blood pressure. By monitoring changes in physical attributes over time, a doctor can tell a lot about a patient's health.

### **Versus**

#### **Waterway Physical Attributes**

A waterway exam may involve observing the plant and animal habitat around a watershed. An environmental scientist will look at things like rocks or pebbles in a waterway, invasive plant species and the shape of a stream bank to identify changes to the habitat (or waterway's physical attributes) over time.

#### **Health Indicator 4: Flow**

##### **Human Flow**

A human exam may involve questions about how a patient flows throughout, or manages, a day. A doctor may observe a patient's stress level and how the patient handles the stress. For example, a patient may have to overcome many obstacles throughout a day, or a patient could have a pretty simple daily routine. One has a greater impact on health than the other.

### **Versus**

##### **Waterway Flow**

A waterway exam may involve observing the surfaces rainwater must flow over before reaching a waterway. An environmental scientist will look to see if rainwater travels over a lot of vegetation or pavement before reaching a waterway. Vegetation, like grass and plants, help naturally clean rainwater. Pavement can cause stress by increasing the amount of pollution that ends up in a waterway.