

## When living is toxic: bioaccumulation and biomagnification

### WORK SHEET

*“All things are poison and nothing is without poison;  
only the dose makes a thing not a poison.”*

*(Paracelsus)*

1. Match the name of the process to its description.

#### BIOACCUMULATION

#### BIODILUTION

#### BIOMAGNIFICATION

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It occurs within an organism, where a concentration of a substance builds up in the tissues and is absorbed faster than it is removed. This process often occurs in two ways, simultaneously: by eating contaminated food, and by absorption directly from water.

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Tendency of pollutants to concentrate as they move from one organism to the next. Increase in concentration of a pollutant from one link to another, on each trophic level. Pollutants are not metabolized and when organism containing pollutant is eaten, they are passed on predator.

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Decrease in concentration of pollutant with an increase in trophic; it is present in eutrophic (nutrient rich) environments.

2. Is eating fish healthy?

Underline the species of fish and seafood, which contain lowest level of mercury.

A. **Crab**

B. **Trout**

C. **Tilefish**

D. **Swordfish**

E. **Scallop**

F. **Shark**

G. **Carp**

H. **Salmon**

I. **King Mackerel**

3. How to remove heavy metals from your organism? Give 5 examples.

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4. Identify species shown in the pictures below – use terms from exercise 3.

