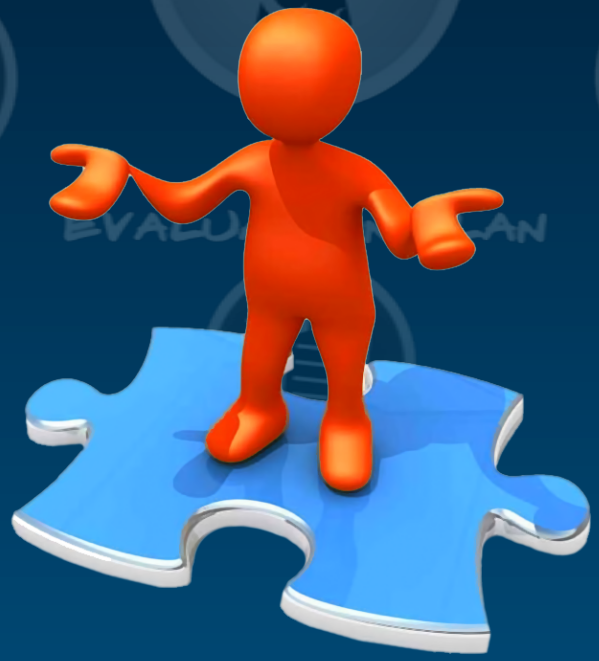
Breaking Down Your Science



CoSEE
CENTERS FOR OCEAN SCIENCES EDUCATION EXCELLENCE

How do you plan to effectively communicate with your intended audience?

- What are the scientific questions in your proposal?
- What elements of the scientific questions do you want to highlight in your BI project?
- Why does this information matter to your audience?
- What are the potential benefits of supplying this information to your audience?
- What are your 2-3 key points or take away messages?

Adapted from the Message Box tool created by COMPASS

An example of responses for a scientific audience:

What are the scientific questions in your proposal?

Can we use trflp profiling of high molecular weight ribosomes to determine if the percentage of active bacteria and specific individual bacterial species change in parallel to a strong environmental gradient?

What elements of the scientific questions do you want to highlight in your BI project?

We can use molecular techniques to learn about what functions bacteria perform in the environment OR Bacteria can survive and grow in different places and we can use molecular techniques to learn about them.

Why does this information matter to your audience?

Bacteria perform a key role in carbon cycling in aquatic systems. Carbon cycle is necessary for life as it allows for carbon to move from different reservoirs, including biosphere and all of its organisms.

What are the potential benefits of supplying this information to your audience?

Through a deeper understanding of the carbon cycle and the role that microorganisms play, the audience can gain a greater comprehension of the science of climate change.

What are your 2-3 key points or take away messages?

Bacteria perform different functions in the environment OR Bacteria can survive and grow in different places

Adapted from the Message Box tool created by COMPASS

An example of responses for a K-12 student audience (BI project):

What are the scientific questions in your proposal?

Are there population changes in bacteria under different environmental conditions? Will these changes have an impact on the environment?

What elements of the scientific questions do you want to highlight in your BI project?

Bacteria do many different things on Earth, even in the ocean.

Why does this information matter to your audience?

Bacteria help keep the oceans clean and help cycle nutrients on Earth.

What are the potential benefits of supplying this information to your audience?

The audience will learn that bacteria do not just make you sick and that there are important in our lives.

What are your 2-3 key points or take away messages?

More bacteria are helpful than harmful

Adapted from the Message Box tool created by COMPASS

EXAMPLE

Take away message...

More bacteria are helpful than harmful.

Use your answers from previous questions in the exercise to complete the following statement in the BI Wizard:

My science is relevant to this audience because...

Members of my audience often believe that all bacteria are the same everywhere and are harmful. They do not fully understand species diversity, what influences this diversity, and the important roles bacteria play in the ocean environment. Without these microorganisms, carbon would be trapped in dead organisms and carbon and other nutrients would not be available to support life on Earth.

Now it's your turn

Take away message…

Use your answers from previous questions in the exercise to complete the following statement in the BI Wizard:

My science is relevant to this audience because…