

Purposeful Questioning: The Process

Start with a purpose

My main purpose is for youth to ...

e.g. examine the properties of the materials and use the materials to design a filter to clean up dirty water.

Plan some Purposeful Questions

To nudge youth toward that goal ...

e.g. How are you thinking you might use the cotton balls in your design?

e.g. What are the differences in the way materials catch debris?

e.g. What was it that trapped the most debris?

e.g. Why do you think the red food coloring was left behind in the dirty water?

e.g. What do you think you could do to get rid of the red coloring that was left behind?

e.g. What would you tell someone if they wanted to remove the oil from the dirty water?

e.g. How would you use what you learned earlier to make an even better filter?

e.g. Who might be interested in knowing how to make a better filter? What would you tell them?

To broaden their ideas

e.g. What else did you notice?

e.g. Is there anything else you changed in your design?

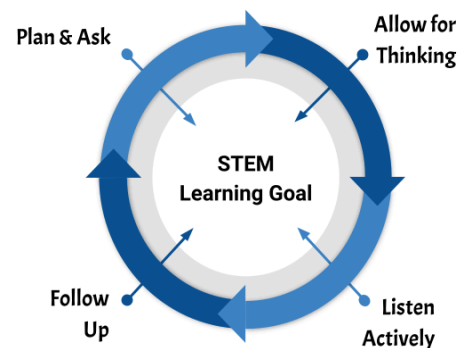
e.g. What other parts of your filter do you think might have made a difference?

e.g. How would you test those?

e.g. What else are you thinking about?

e.g. What did Jamal say? Can you build on his idea?

e.g. How is your filter system different from Moe's?



Allow for 'Think Time'

e.g. Wait time: I plan to wait a minimum of 5 seconds, even if it's uncomfortable, to let youth think.

Follow up to Understand their Thinking

To help me understand their different ideas ...

e.g. Can you say more about that?

e.g. What are you noticing that makes you think that?

e.g. What do you mean by that?

e.g. Are you saying xxx? I don't quite understand.

e.g. How did you figure that out? What's your evidence?