Investigation planner: Stages 2 and 3

Name: Sample answer for turbidity investigation

Date:

Other members of your team:

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| Question for investigation*The difference in the turbidity between the dam and the creek.* | What do you think will happen? Explain why.*Dependent on student responses, possibilities include:** *The dam will be cleaner because it’s a bigger water body (incorrect in this case)*
* *The creek will be cleaner because its flowing and the banks are lined with trees (correct)*
 |
| **What things (variables) are you going to:** |
| Change*Location of water body / aquatic habitat* | Measure/observe*Turbidity – dirt in the water**Observe the presence of livestock, evidence of erosion and vegetation.* | Keep the same*Sampling technique* *Time and weather (both samples taken within an hour)**Apparatus (turbidity tube)* |
| How will you make it a fair test?*Controlling variable- Use the same sampling procedure for collection of water. Whole class samples both locations, only compare paired samples i.e same observer****Water*** *- sample from the middle of water, do not scrape dirt from bottom or slicks from surface)****Tube reading*** *(take the tube reading in the shade, read the NTU as the first number under the water level)* | Draw the equipment you will use and show how it will be set up. |
| **Write and draw about your observations in your science journal (and record your results in a table).** |

Presenting results

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| **Can you show your results in a graph?** |
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Explaining results

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| When you changed *location / habitat* what happened to the …*turbidity...*...……..………….........?Turbidity was higher in the dam than the creek. |
| Why did this happen?*-erosion at the dam, livestock access to dam**-creek is well vegetated*  | Did the results match your prediction? If not what was different? |

Evaluating the investigation

What problems did you have in doing this investigation?

*-accurate sampling without stirring up the turbidity*

*- controlling water depth as a variable*How could you improve this investigation (fairness, accuracy)?

*- take more samples at both locations*

*-regular monitoring through the year*