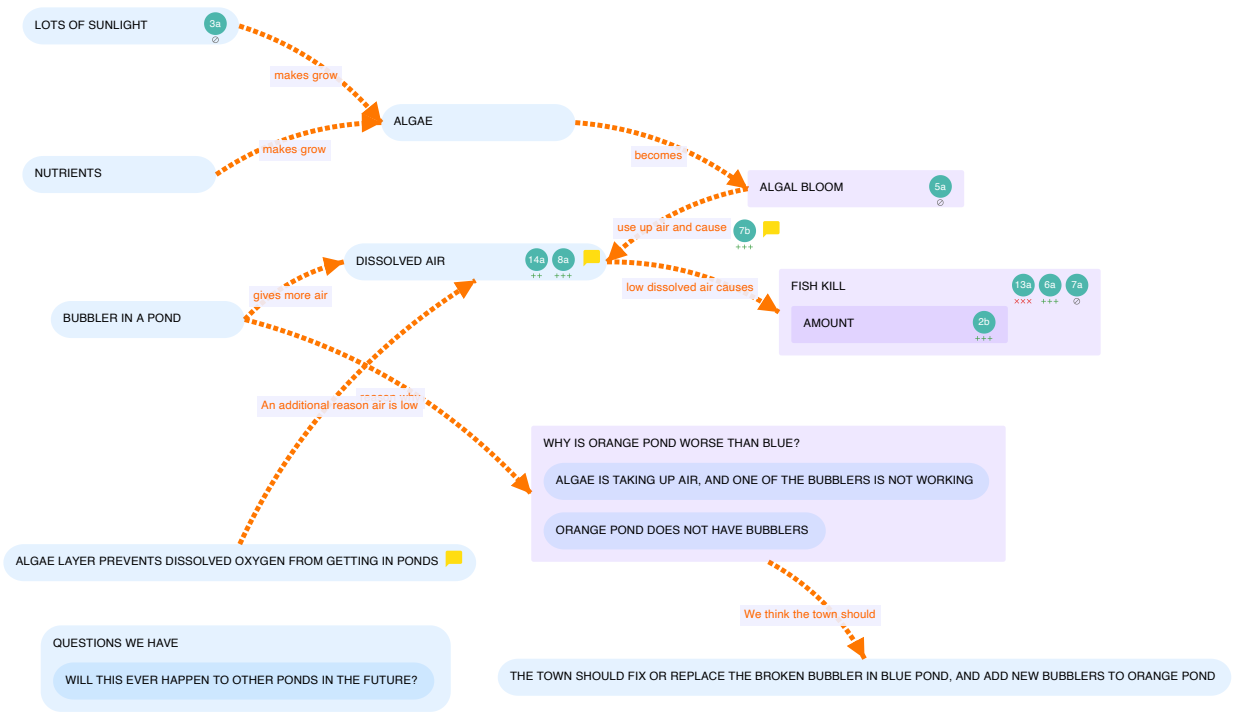
MODEL: Group 1 Starting Model by Group 1 Group

INSTRUCTORS : GROUP 1



Model: Group 1 Starting Model

COMMENTS:

ENTITIES

LABEL: Nutrients
DESCRIPTION: These are chemicals and vitamins in the water that can help algae grow.
COMMENTS:

LABEL: Algae
DESCRIPTION: Tiny green plants that float on the surface of the pond.
COMMENTS:

LABEL: Lots of sunlight
DESCRIPTION: Lots of sunny days at the pond in the summer.
COMMENTS:

LABEL: Dissolved air
DESCRIPTION: Fish need to breathe the air.
COMMENTS:

AUTHOR: HAMMERHEAD-ZVHW
DATE: 04:31 PM Apr 16
COMMENT CRITERIA: Shows all steps in process: Does the model show all of the important steps? Does it have extras that we don't need?
COMMENT: This is great. We saw several pieces of evidence that there wasn't a lot of dissolved air left and we agree. Nice work!

AUTHOR: INSTRUCTORS-GEAM
DATE: 11:03 AM Aug 2
COMMENT CRITERIA: Question or Response: Use this label when replying to a comment.
COMMENT:

LABEL: Questions we have
DESCRIPTION:
COMMENTS:

LABEL: Will this ever happen to other ponds in the future?
DESCRIPTION:
COMMENTS:

LABEL: Algae layer prevents dissolved oxygen from getting in ponds
DESCRIPTION: Algae forms top layer that blocks the wind from getting air into water…. Because of how fast they swim.
COMMENTS:

AUTHOR: INSTRUCTORS-MKSL
DATE: 04:50 PM Apr 20
COMMENT CRITERIA: Supported by evidence: Does the evidence we have show that the model works this way? Is there any evidence that says the model doesn't work this way?
COMMENT: Do you have an evidence

LABEL: The town should fix or replace the broken bubbler in Blue Pond, and add new bubblers to Orange Pond
DESCRIPTION: We think that both bubbler issues need to be addressed, but Orange Pond is a priority because so many more fish died
COMMENTS:

LABEL: Bubbler in a pond
DESCRIPTION: Bubbler gives additional dissolved oxygen to ponds

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OUTCOMES

LABEL: Algal Bloom
DESCRIPTION: When a whole lot of algae appears all at once in the pond.You can tell because the water color changes from all of the algae.
COMMENTS:

LABEL: Fish Kill
DESCRIPTION: When large numbers of fish die in a short time.
COMMENTS:

LABEL: Amount
DESCRIPTION:
COMMENTS:

LABEL: Why is Orange pond worse than Blue?
DESCRIPTION:
COMMENTS:

LABEL: Algae is taking up air, and one of the bubblers is not working
DESCRIPTION: The algal bloom is taking up alot of air in the ponds, and in Blue pond, one of the bubblers is not working and cannot give more air to the pond.
COMMENTS:

LABEL: Orange pond does not have bubblers
DESCRIPTION: Orange pond is not getting as much air because it does not have bubblers in it. Our research showed that both Orange and Blue pond had the same amount of algae in it, so no bubbler seems to be why Orange pond had more fish die.
COMMENTS:

PROCESSES

SOURCE: entity/Nutrients
TARGET: entity/Algae
LABEL: makes grow
DESCRIPTION: Nutrients are taken up by the algae and helps them grow.
COMMENTS:

SOURCE: entity/Algae
TARGET: outcome/Algal Bloom
LABEL: becomes
DESCRIPTION:
COMMENTS:

SOURCE: outcome/Algal Bloom
TARGET: entity/Dissolved air
LABEL: use up air and cause
DESCRIPTION:
COMMENTS:

AUTHOR: HAMMERHEAD-ZVHW
DATE: 04:31 PM Apr 16
COMMENT CRITERIA: Supported by evidence: Does the evidence we have show that the model works this way? Is there any evidence that says the model doesn't work this way?
COMMENT: How do we know the Algal Bloom uses up the air? Is there any evidence of this?

SOURCE: entity/Dissolved air
TARGET: outcome/Fish Kill
LABEL: low dissolved air causes
DESCRIPTION:
COMMENTS:

SOURCE: entity/Lots of sunlight
TARGET: entity/Algae
LABEL: makes grow
DESCRIPTION:
COMMENTS:

SOURCE: entity/Bubbler in a pond
TARGET: entity/Dissolved air
LABEL: gives more air
DESCRIPTION:
COMMENTS:

SOURCE: entity/Bubbler in a pond
TARGET: outcome/Why is Orange pond worse than Blue?
LABEL: reason why
DESCRIPTION:
COMMENTS:

SOURCE: entity/Algae layer prevents dissolved oxygen from getting in ponds
TARGET: entity/Dissolved air
LABEL: An additional reason air is low
DESCRIPTION:
COMMENTS:

SOURCE: outcome/Why is Orange pond worse than Blue?
TARGET: entity/The town should fix or replace the broken bubbler in Blue Pond, and add new bubblers to Orange Pond
LABEL: We think the town should
DESCRIPTION:

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EVIDENCE LIBRARY

(1) Our Ideas

NOTES: Feel free to add your ideas directly to the document so you can use them as evidence.

No evidence