The influence of fish to an Aquaponics system

Themes: 'Engineering and Technology' and/or Education
Team: Aquaponics
School: Maurick College, The Netherlands
Students: Bente Stultiens, Anne van den Akker, Sanne Beekman, Manon Boers
Teacher: John van Heeswijk

In an aquaponics system, nutrient-rich water from raising fish provides a natural fertilizer for plants. Aquaponics is a method to grow food in a sustainable way in an urbanized area, year-round and in every climate. Aquaponics can be used for indoor and outdoor farming, when there is a lot of space or a limit of it. This makes aquaponics a perfect future method to grow food on a small but also large scale.

At this moment, our team is testing an aquaponics system inside our school.
We are trying to prove that vegetables will grow faster and thrive more in water that is habited by animals like fish. The principle method of the aquaponics system is that the feces of the fish will act as nutrients for plants. Bacteria are breaking down the fish feces and makes it into particles plants can use to grow, to flower and to produce fruits or vegetables.
Right now, we are rebuilding our system to test the influence of different biological and non-biological factors that have impact to the system.