

# USER GUIDE

## Chemix Visualize In Mozilla Science Lab

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## 1 Scope and Purpose of the project

We are developing a project for chemical experiment. It is made to present the information regarding the change of volume and the color change during the reaction between inorganic solutions and acidic solutions, and to present the change of pH value of solutions with water.

In order to perform this we can use html, JavaScript, svg techniques.

We are contributing this project for [Mozilla Science Lab/chemix](#)

## 2 Process Overview project

Here, there are two types of solution changes. The first one is the acidic, basic changes of inorganic solutions. It demonstrates the change of volume, the color change when the solution is added with an acid or base.

The second one is the change of pH value of solutions with water. It demonstrates how it is balanced when solution is added with water and how its pH value changes.

## 3 How you can use

### 3.1 Introduction the Structure of Interface

This application consists Experimental area and toolbar. Chemical experiments are done in the experimental area. This application consists two types of experiment. The experimental pages can be changed by using the toolbar. The conclusions regarding the explanations are in the related pages. In case of help, there is a help me icon.

### 3.2 How to work with an experimental area

In each application, different chemicals can be selected by using the triangular icon. The selected chemicals can be filled into the flask by clicking the button on the top. Volume can be reduced by using the rectangular button on the flask with the help of the volume scalar the volume fitted within the flask can be identified.

In complex chemical page, the experiment should be done after filling the given solution above 20 ml. The color can be identified when an acid/base is mixed and obtained.

In pH scalar application, its goal is to present the change which occurs when a given solution is filled within the flask and diluted with water. Here, change of pH can be identified by using the pH scalar. The change of the pH value of acid/base solution with water can be also identified.

## 4 Screen Shots and explanation

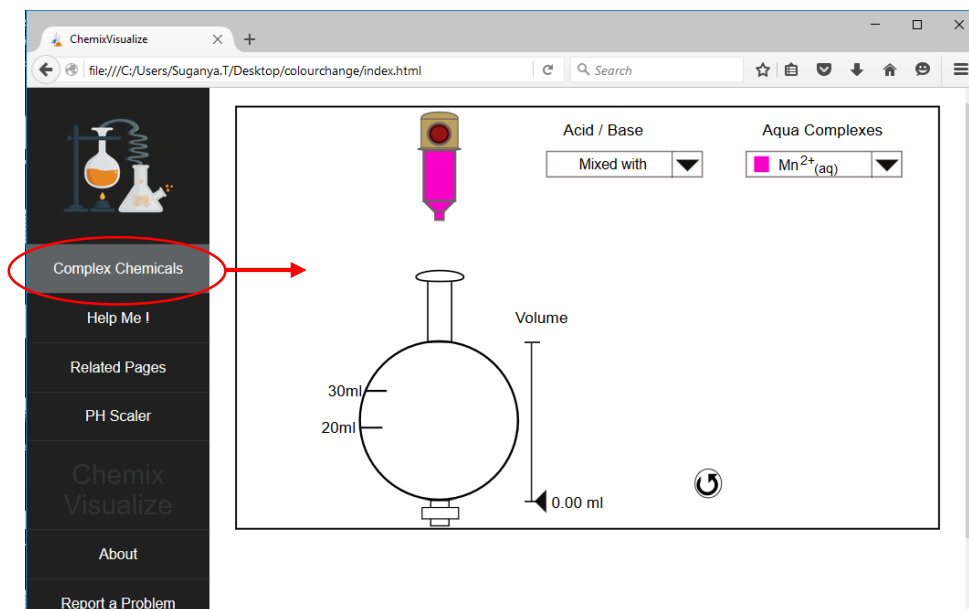


Figure 1 inorganic testing experimental area for click the complex chemical icon.

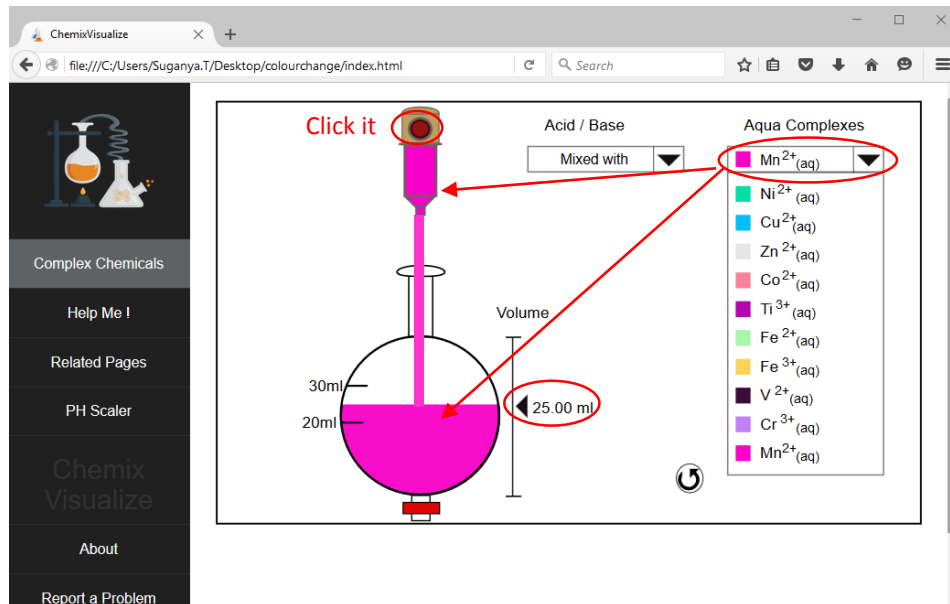


Figure 2 selected chemicals can be filled into the flask by clicking the button on the top.

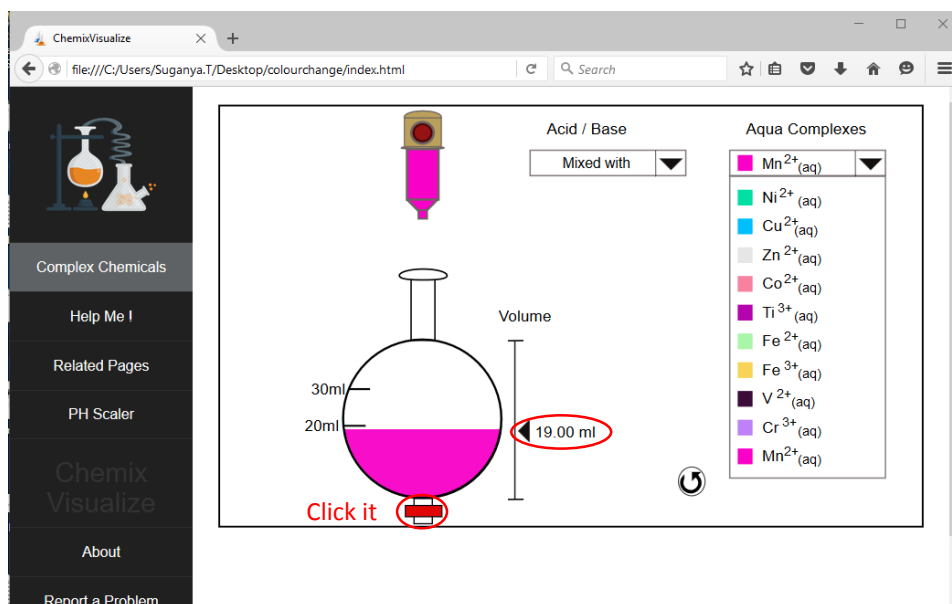


Figure 3 Volume can be reduced by using the rectangular button on the flask.

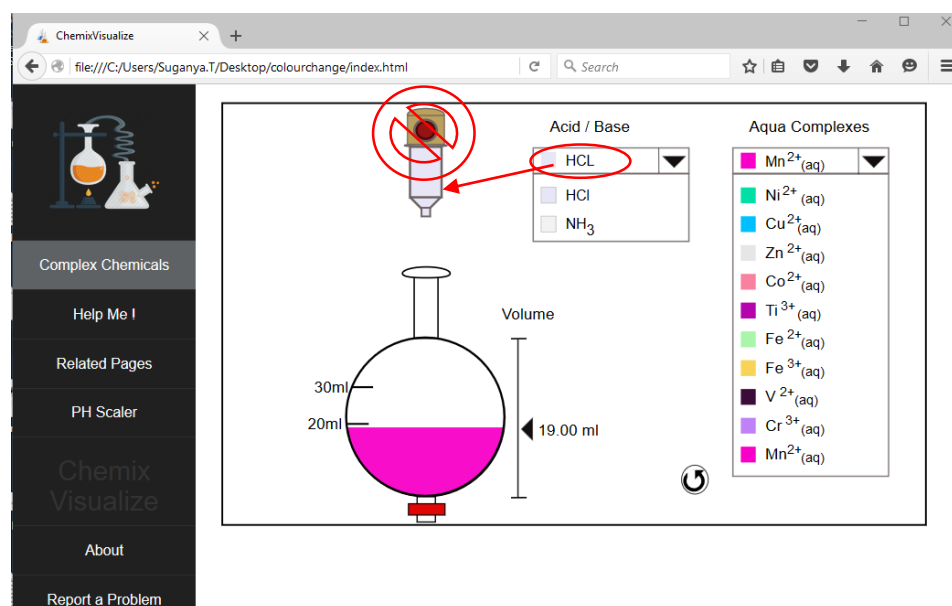


Figure 4 the experiment should be done after filling the given solution above 20 ml.

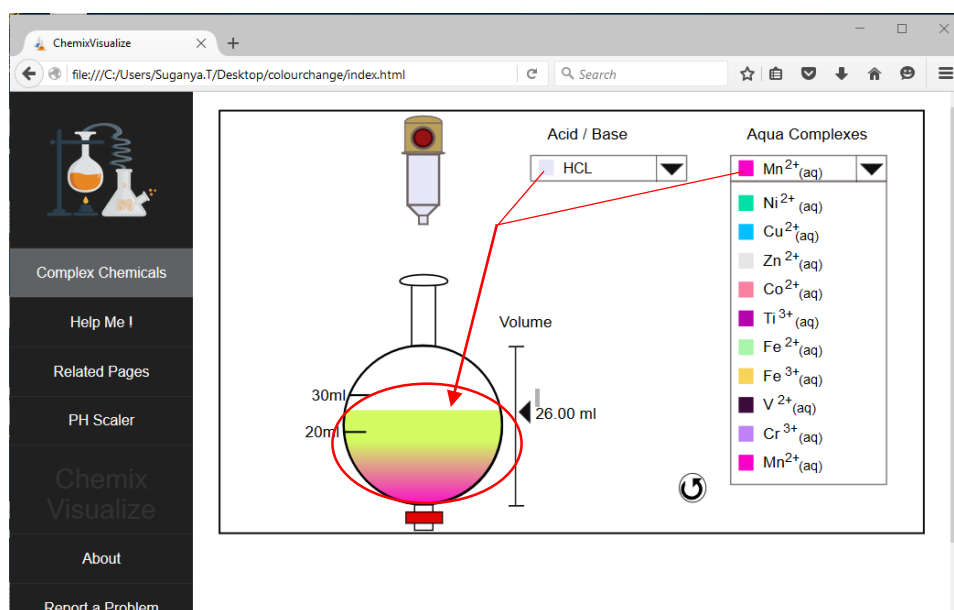


Figure 5 color can be identified when an acid/base is mixed and obtained.

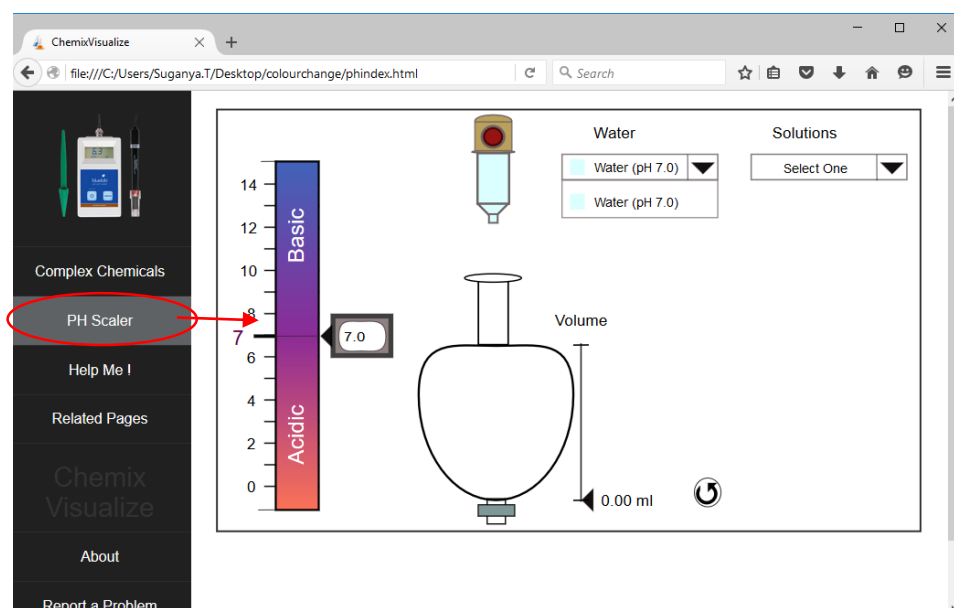


Figure 6 pH testing experimental area for click pH scale icon.

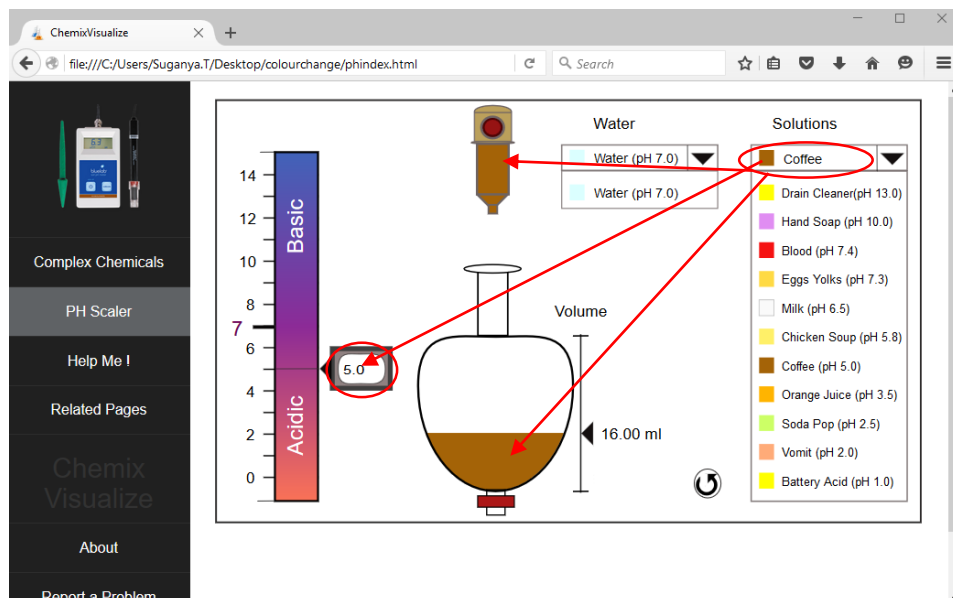


Figure 7 choose specific solution and identify the pH value in pH scale

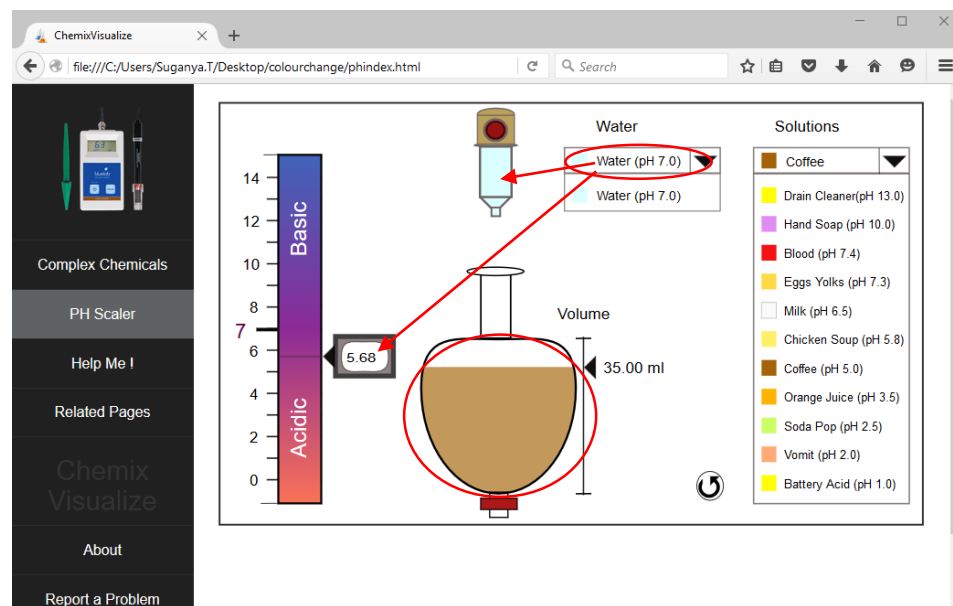


Figure 8 a given solution is filled within the flask and diluted with water. Here, change of pH can be identified by using the pH scalar.



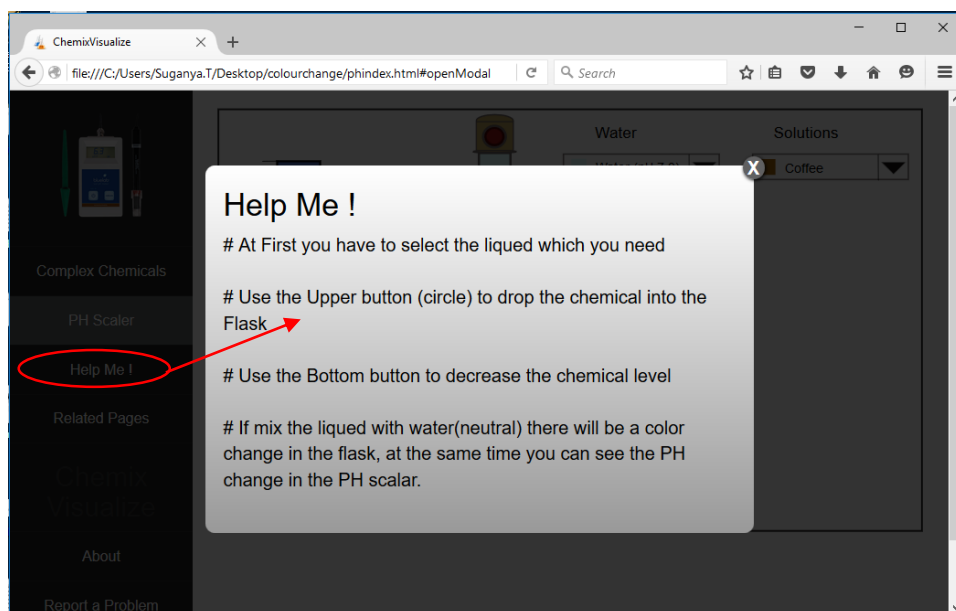


Figure 9 this is a help me icon

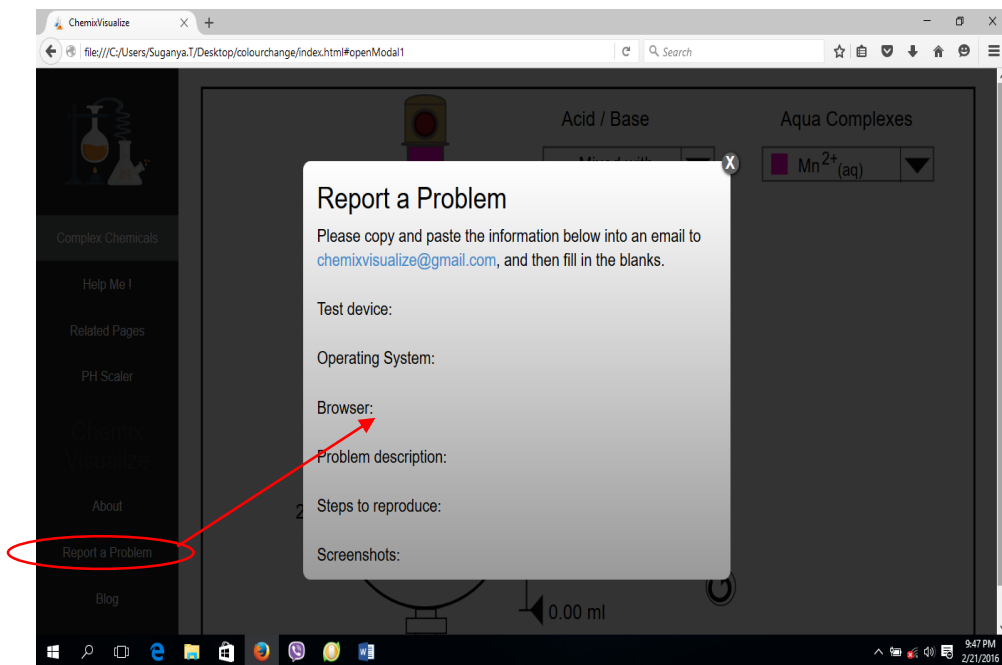


Figure 10 you can report the problems to [chemixvisualize@gmail.com](mailto:chemixvisualize@gmail.com)