

## Organic Reagents

### Aims

To help students learn the effects of various reagents on organic molecules.

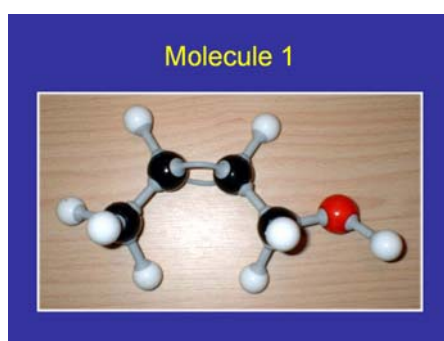
### Prior Knowledge

Students will need to have been taught the key reactions of:

- Alkenes
- Alcohols
- Haloalkanes
- Amines

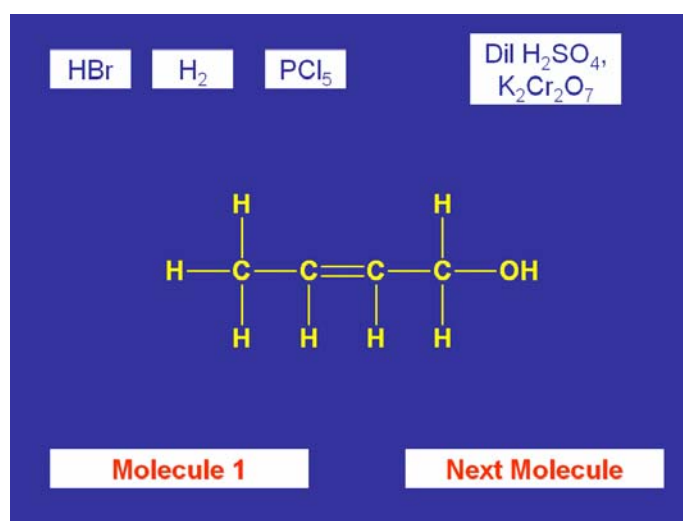
### How to use the Presentation

The slides contain detailed reactions of three organic molecules (called Molecules 1, 2 and 3).



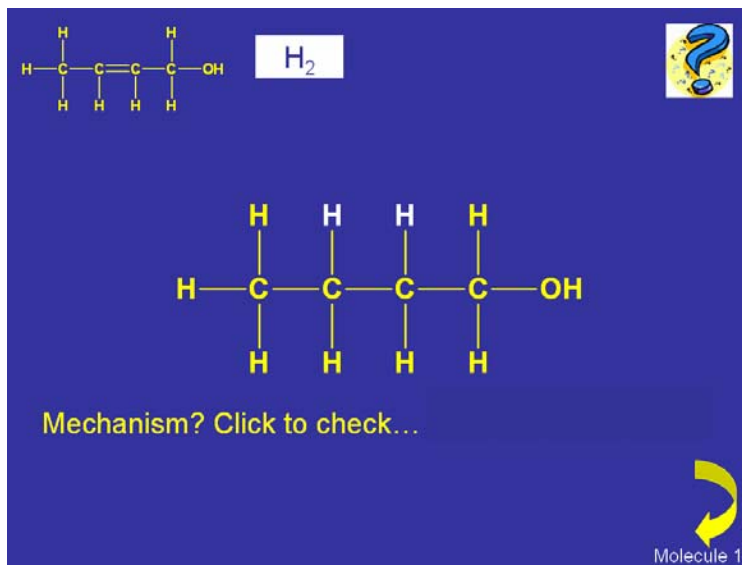
Introductory Slide

On the introductory slide the molymod of the molecule is shown, students should be instructed to draw the molecule into their notes as a full displayed formula. The next slide shows the molecule drawn in this format and lists the reagents that will react with the molecule. Students should predict the product(s) of each possible reagent with the molecule and draw these.

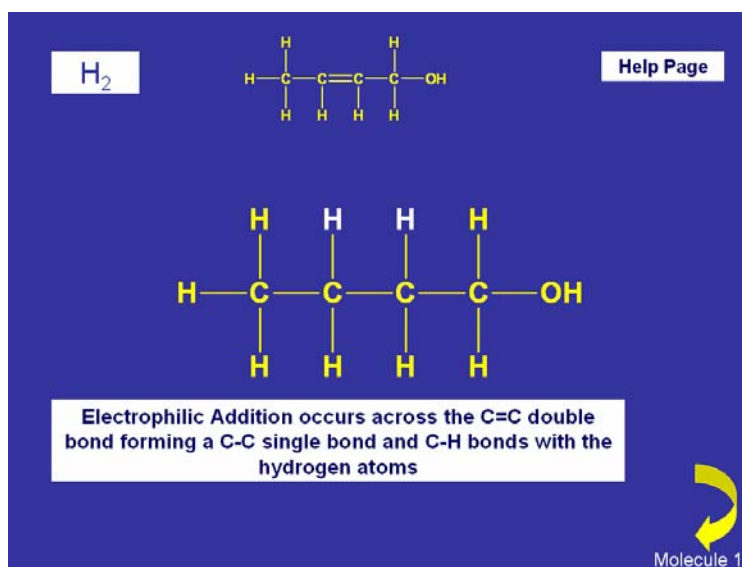


Main slide showing the molecule and reagents.

To check their answers the relevant reagent can be selected – this will open up an additional slide containing the answer. If additional help is needed a full explanation of the reaction can be obtained by selecting the question mark button.



Answer Slide – Selecting the Question mark links to the Help Page



Help Page – An explanation of the answer is given here.

To return to the original molecule the yellow arrow at the bottom of the page should be selected.

The presentation is intended for use with a whole class as summary lesson on organic reagents for A2 chemistry. Students should predict the effects of reagents then check their answers using the hyperlinked buttons, the answers can then be discussed as a group.

### **Interactivity**

This resource offers interactivity through providing alternative routes dependant on student choices. The help function gives additional support when incorrect answers are given. If used with an interactive whiteboard extensive use can be made of the capability to annotate resources. For example students can highlight the functional group that will react with a particular reagent – when using Phosphorus Pentachloride they should highlight the OH group. This can be a powerful tool when the activity is used with a whole group as students can support each other with identifying the reactivity of reagents with different functional groups.

### **Adapting the Resource**

Three molecules have been provided in the resource to be used with students. Additional slides and molecules can be added if necessary but it is felt that three is probably enough to use with a whole class. All chemical structures have been drawn with Chem Sketch.