PR2.3

CHECK YOUR KNOWLEDGE AND UNDERSTANDING (PART 1)

This activity helps you check your knowledge and understanding of the topics that you have covered in Chemical Storylines PR1 and PR2.

Introduction

The checklist below covers the key points in **Chemical Storylines PR1** and **PR2**.

The statements listed correspond to learning outcomes in the specification for the AS examinations. They are listed in the order in which they occur in this module. Remember that you will be coming back to many of the ideas in later modules.

You will probably have made summary notes of the main ideas that you have met. Now is a good time to make sure that your notes cover all the points you need. If you feel that you are not yet able to meet the requirements of all of the statements in the list, you should look again at the areas concerned, seek help from your teacher if necessary and develop your notes accordingly.

Most of the points are covered in **Chemical Ideas**, with supporting information in **Chemical Storylines** or the activities. However, if the main source of information is in a storyline or an activity this is indicated.

What you do

Read and think about each of the statements in the checklist. Put a tick in the column that best represents your current ability to do what is described:

A – I am confident that I can do this
B – I need help to clarify my ideas on this
C – I am not yet able to do this.

You will be sharing this information with your teacher so that you can work together to improve your understanding.

At the end of sections PR1 and PR2 you should be able to:	A	B	C
• explain and use the terms thermoplastic, thermoset and co-polymer **Chemical Storylines PR1**			
• explain the relative boiling points of substances in terms of intermolecular bonds			
• recognise and write formulae for alkenes and use systematic nomenclature to name and interpret the names of alkenes			
• explain and use the term addition polymerisation, and predict the structural formula of the addition polymer formed from given monomer(s), and vice versa			
• recall the addition reactions of alkenes with the following: – bromine to give a dibromo compound – and the use of this as a test for unsaturation – hydrogen bromide to give a bromo compound – hydrogen in the presence of a catalyst to give an alkane – Ni with heat and pressure, or Pt at room temperature and pressure – water in the presence of a catalyst to give an alcohol (concentrated H_2SO_4 and then add water; or steam/ H_3PO_4 under heat and pressure)			
• explain and use the terms addition, electrophile, carbocation • use the mechanism of electrophilic addition as a model to explain the reaction between bromine and alkenes using 'curly arrows' • explain how the products obtained when other anions are present confirm the model of the mechanism **Activity PR2.2**			

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