

Name: Key
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Chemistry 11
Polarity and Solutions

Read pages 199-207 in Hebden, then watch the Crash Course Chemistry video on Polar and Non-Polar Molecules #23 (link for this video is provided) before answering the following questions:

1. How do you identify a polar molecule?

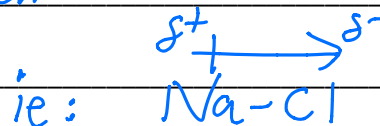
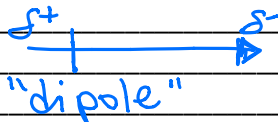
- is asymmetric (lacks symmetry)
- has a permanent dipole (separation of charge)

2. Describe geometric symmetry in terms of molecules:

is symmetrical → non-polar

lacks symmetry → polar

3. Explain how you would draw a dipole?



4. What does "like dissolves like" mean?

Similar solvents will dissolve similar solutes
polar " " " polar " "
non-polar " " " non-polar " "

5. What happens when you combine water and alcohol?

"like dissolves like" → both polar

50 mL water + 50 mL alcohol ⇒ 98 mL mixed

6. Why is water so truly amazing?

- polar, H-bond, universal solvent

7. What is a hybrid molecule? What is an example of one?

a molecule that has both a "polar" and a "non-polar" region.
"Soap" is an example.

Now do examples 9,10,14-17, 18-22 over pages 201-207