

## **Information of Plastics Worksheet**

Plastic Type & Symbol	Plastic Examples	Chemical Formula	Chemical Structure
企 PET (Polyethylene Terephthalate)	Beverage bottles, plastic cans, fabric fibres and carpets, some bottles for hygiene products	(C <sub>10</sub> H <sub>8</sub> O <sub>4</sub> ) <sub>n</sub>	$\begin{bmatrix} 0 & 0 \\ -1 & 0 \\ $
② HDPE (High-Density Polyethylene)	Bottles for household chemicals, milk jugs, juice containers, medicine bottles	(C <sub>2</sub> H <sub>4</sub> ) <sub>n</sub>	More linear compared to LDPE: $\begin{array}{c} H_2 & H_2 \\ \hline C & C \\ \end{array} \xrightarrow{h_2} & H_2 & H_2 \\ \hline C & C & C \\ H_2 & H_2 \\ \end{array} \xrightarrow{h_2} & H_2 \\ H_2 & H_2 \\ \end{array}$
ک PVC (Polyvinyl Chloride)	Toys, blister wrap, cling wrap, detergent bottles, loose-leaf binders, blood bags, medical tubing	(C <sub>2</sub> H <sub>3</sub> Cl) <sub>n</sub>	$- \begin{bmatrix} H_2 & Cl \\ C - C \end{bmatrix} - \begin{bmatrix} Cl \\ H_2 & n \end{bmatrix}$
کے LDPE (Low-Density Polyethylene)	Bags (grocery, dry cleaning, bread, frozen food bags, newspapers, garbage), plastic wraps; coatings for paper milk cartons and hot & cold beverage cups; some squeezable bottles (honey, mustard), food storage containers	(C <sub>2</sub> H <sub>4</sub> ) <sub>n</sub>	More "branches" compared to HDPE: $-\left\{ \begin{matrix} H_2 \\ C - C \end{matrix} \right\}_n \rightarrow \int $
。 PP (Polypropylene)	Thermal vests, car parts (bumpers), disposable diapers, sanitary pad liners, furniture	(C <sub>3</sub> H <sub>6</sub> ) <sub>n</sub>	
企 PS (Polystyrene)	Food containers, egg cartons, disposable cups and bowls, packaging, cosmetic bags	(C <sub>8</sub> H <sub>8</sub> ) <sub>n</sub>	$-\begin{bmatrix} H \\ C \\ -\end{bmatrix}_{n}^{H_{2}}$