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| Chromatography | Magnetism |
| Distillation | Floatation |
| Filtration | Extraction |
| Mechanical Separation | Crystallization |

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| Separation by particle size; If the mixtures is made up of large enough particles, or pieces you can separate them by hand. |
| Separation of liquids by density and solubility. Given enough time the liquids with different densities and solubilities will form layers. The top layer can be skimmed off or siphoned and the bottom layer will remain.  |
| Some substances are attracted by a magnet field and can be pulled from a mixture |
| Separation of solids with different densities. When put into water some substances in the mixture will float and while others will sink. The “floaters” can be skimmed off the surface. |
| Separation by boiling point differences. Typically a mixture is heated gradually and the substances that vaporize the easiest will separate first. |
| Separation by inner molecular attractions. Some mixtures have components that “stick” to materials in different ways. These attractions take place at the molecular level. |
| Separation by particle size. Passing the mixture through a filter or a screen will allow small particles to pass and larger ones to be “trapped” |
| Separation by solubility. Substances have different solubilities at temperatures. A solution can be cooled to the point where the solute will begin to form crystals and separate from the mixture. |