



Jobs in the Potomac River Watershed

Teacher Instructions

Below, eight industries that are prevalent in the Potomac River watershed are listed. Cut out each industry description and distribute one to each group. Assign the students to read the description, and to further research the industry using Internet and library resources, or by interviewing someone who works in the industry.

• Poultry Farming

Poultry farming involves raising chickens and turkeys. Poultry are often bred in certain ways so that they live longer, grow bigger, and lay a greater volume of eggs. Jobs in the poultry industry vary, and include disciplines such as **genetics**, disease control, nutrition, engineering, food science, production, and business.

• Coal Mining

Coal mining is the extraction or removal of coal, primarily to be used as a fuel source. Coal near or on the surface is extracted through a process called **strip mining**, in which top layers of earth are removed to reach the coal underneath. However, most coal is found and extracted from deep under the earth's surface.

• Pulp and Paper Processing

Pulp mills rely on tree products, and use mechanical, semi-chemical, and chemical methods to make fiber board out of plant fiber and wood chips. This fiber board is shipped to paper mills, where it is made into paper using a Fourdrinier machine.

• Forestry/Forest Products

Forestry is the practice of studying and managing forests and related natural resources for timber, wildlife habitat, natural water quality regulation, recreation, and more. Foresters work in many different settings (e.g., tree nurseries or urban areas) and disciplines (e.g., tree **genetics** or management planning).

• Cement Industry

There are many different kinds of cement, but they can be divided into two broad categories: portland and non-portland. A key ingredient of portland cement is limestone, which must be mined. Concrete mixed with water can be shaped to provide stable structural elements when it hardens, and is often used to build sidewalks and buildings.

• Plastics Industry

Plastics are made of **polymers**, which are derived from oil, natural gas, or coal. Plastics are flexible for many applications, and can be formed into various objects, films, and fibers. Plastics are used in a variety of industries, including aerospace, building and construction, electronics, packaging, and transportation.

• Fisheries Industry

The **fisheries** industry captures, processes, and sells fish, shellfish, and other **aquatic animals** for human consumption. Some fisheries are based in natural waterways, while others are established inland in manmade ponds. In addition to people employed directly by the fisheries industry, managing and understanding fisheries is important for those in disciplines such as biology, ecology, oceanography, and economics.

• Tourism

The **tourism** industry supports people who visit areas for recreational or leisure purposes. In many areas, tourism is a significant contributor to the local or regional economy. Job opportunities related to tourism include transportation, hotels and resorts, restaurants, and natural resources management and interpretation. Ecotourism, which is becoming increasingly popular, involves traveling to areas of natural or ecological interest for the purpose of observing nature or learning about the environment.