

Identifying Tools and Equipment

Reasoning the Tools and Equipment

Warm Up

Ask students to look around the classroom and think about how the classroom was built. Ask students what type of materials were needed to build the classroom and record ideas on the board or chart paper. Tell students that they are going to read about construction crafts and use their reasoning skills to match the description to the pictures of the jobs, equipment and tools.

Student Activity

Students will read through the description of each craft and match the description to the picture of the tools and equipment used for each craft. Students can work as groups or individually. Monitor students by circulating the classroom and answering questions.

Wrap Up

Ask students if any of the construction crafts that they learned about were necessary for building the classroom. Record ideas on the board or on chart paper. Ask students to discuss which crafts sound interesting and why.

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Name: _____ Date: _____ Period: _____

Directions: Read the construction craft description and use this information to identify the types of tools and equipment used for each craft. Write the letter that matches each description on the line. **Highlight** the words in the description that justify your answer

_____ 1. **Architect** - Do you see beauty in buildings? Do you like to design? Then you may be drawn to architecture. Architects plan and design houses, office buildings and other structures. These plans show the building's appearance and details of its construction. Accompanying these plans are drawings of air-conditioning, heating and ventilating systems, electrical systems, communications systems and plumbing. These drawings can be done both on paper and in computer-based programs. Architects normally work in an office where they meet with clients, engineers, project managers and other architects.

_____ 2. **Carpenter** - Do you like building, traveling and being outdoors? Why not consider a career that is fun and offers financial freedom: Carpenters measure, cut and shape wood, plastic, fiberglass and drywall. Commercial and industrial carpenters construct, erect, install and repair structures and fixtures. These carpenters are involved in many different kinds of construction, from buildings to highways and bridges to power plants.

_____ 3. **Electrician** - If you're into sound systems, robotics or tinkering with wires, you should think about a career as an electrician. Electricians install and maintain all of the electrical and power systems for our homes, businesses and factories. In large factories, electricians usually do maintenance work that is more complex. These kinds of electricians may repair motors, transformers, generators and electronic controllers on machine tools and industrial robots. They also advise management as to whether the continued operation of certain equipment could be hazardous.

_____ 4. **Glazier** - If you enjoy adventures, scenic views and have a creative side, then try out this profession! Glaziers are true artisans who work with glass as their mediums. They select, cut, install, replace and remove residential, commercial and artistic glass. Glaziers use a variety of tools including glazing knives, saws, drills, grinders, putty and glazing compounds. They must work as a team when guiding and installing glass for large buildings.

_____ 5. **Heavy Equipment Operator** - Do you have an interest in operating dump trucks, bulldozers or other vehicles classified as heavy machinery? As a heavy equipment operator, you will learn how to safely use this type of equipment to move construction materials, dirt and other heavy objects at construction sites and mines. This occupation operates equipment that clears and grades land to prepare it for construction of roads, buildings and bridges, as well as airport runways, power generation facilities, dams, levees and other structures.

_____ 6. **Ironworker** - Ironworking is the ultimate in hands-on construction. If you are looking for an exciting career where you can balance on the top of a brand new skyscraper, then ironworking is for you. Ironworkers place and install iron or steel girders, columns and other construction materials to form the infrastructure all around us. Ironworkers must always be paying attention to details to check vertical and horizontal alignment.

_____ 7. **Painter** - Do you have an eye for different colors, textures and tones? Would you consider yourself creative? Try your hand at becoming a professional painter. Painters are responsible for choosing and applying just the right paint or colors to buildings and industrial structures. This career path ranges from industrial spray painters who apply coatings to prevent deterioration to decorative artisans who create faux finishes.

_____ 8. **Pipefitter** - Are you a little bit of a perfectionist? Do you enjoy reading plans and making something useful? Consider training to become a pipefitter. Pipefitters plan and install detailed pipe systems for commercial and industrial projects. These pipes may carry water, chemicals or gases to the crucial building systems. Pipefitters use many tools to cut and bend pipes to exact specifications.

_____ 9. **Plumber** - Are you always tinkering with objects? Do people ask for your help with fixing mechanical things? Look into becoming a plumber! Plumbers do much more than fix sinks and toilets in residential homes. They design and install piping systems that distribute water and remove waste from buildings, and connect heating and cooling systems. Plumbers have to be knowledgeable in water distribution, blueprint reading, local ordinances and regulations, mathematics, mechanical drawing, physics, welding and soldering.

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Answer Key

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