

From Blank Lot to Ribbon Cutting



Construction Careers Month: follow one building from idea to opening day.

A building doesn't appear overnight. It takes dozens of careers, working in a certain order. Can you match each career to the phase where it starts?

Step 1 Read the 5 Phases of the Build

1

Plan

Ideas become drawings,
budgets and permits.

2

Prep the site

The land is measured,
cleared and dug.

3

Build the structure

The frame, foundation
and walls go up.

4

Systems and finishing

Power, water and air go in, then the finishes.

5

Inspect and open

Everything is checked
before the doors open.

Step 2 Write Each Career's Phase Number in Its Box

Pipe-Fitter

Installs and connects the pipes that carry water, gas and air.

Energy Auditor Inspector

Checks that the finished building uses energy wisely.

Building Information Modeling Coordinator

Builds 3D digital models of the building before it is built.

Heavy Equipment Operator

Clears, grades and digs with large machines.

Construction Project Manager

Keeps the schedule, budget and crews on track.

Site Foreman

Directs the daily work and crews on the building site.

Carpenter

Builds and installs frames, walls and fixtures.

Drywall Mechanic

Hangs and finishes the walls and ceilings inside.

Prefabrication Apprentice

Builds parts of the building in a factory to assemble on site.

Crane Operator

Lifts and places heavy materials where they are needed.

Step 3 Look Closer

Pick one career and find its Career Profile in Pathful. What training or education path does it list?

[illegible]

Step 4 Jobsites Are Changing

Drones, 3D building models, prefabricated parts and solar panels are changing construction. Pick one. How could it change the career you chose?

[illegible]

Educator Page

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Time

30 to 35 minutes

Grades

9 to 12

Best For

Construction Careers Month in October, or any lesson on the Architecture and Construction Career Cluster

What Students Will Do

Students follow one building through five phases of construction and match ten careers to the phase where their work starts. Then they research one career and think about how new technology could change it.

Before You Start

- Print one page per student. The educator page is for you only.
- Know the five phases: 1 Plan, 2 Prep the site, 3 Build the structure, 4 Systems and finishing, 5 Inspect and open.
- Make sure students can log in to Pathful for Step 3.

How to Run It

1. (3 to 5 min) Read the five phases aloud. Ask for one example job in each phase before students read the careers.
2. (8 to 12 min) Step 2: students write a phase number in the box next to each career. Some careers appear in several phases; tell students to pick where the work starts.
3. (5 to 7 min) Compare with a partner. Students explain any answer that differs.
4. (10 to 15 min) Steps 3 and 4: students find one career in Pathful and write what training it needs. Then they pick one technology (drones, 3D building models, prefabricated parts or solar panels) and describe how it could change that career.

Answer Key

Building Information Modeling Coordinator 1. Construction Project Manager, all phases. Site Foreman 2. Heavy Equipment Operator 2. Carpenter 3. Crane Operator 3. Prefabrication Apprentice 3. Pipe-Fitter 4. Drywall Mechanic 4. Energy Auditor Inspector 5. Some careers span more than one phase; accept a reasonable answer if the student can explain it. For Step 4, accept any answer that links the technology to a real task, such as drones helping a Site Foreman survey a lot.

Discussion Prompts

- Which career surprised you by showing up earlier or later than you expected?
- What happens to the schedule if one phase gets delayed?
- Which of these careers work mostly outdoors? Mostly in an office? Both?

Support and Extend

- Short on time? Do Step 2 in class and assign Steps 3 and 4 as homework.
- Support: complete the first three matches together as a class.
- Extend: sketch the same five-phase timeline for a different project, like a bridge, a hospital or a solar farm.