

BYF

CONSTRUCTION CLUB

Session 1



Greeting

Teams of 6.

Round 1: Alphabetical order by first name—without using words!

Round 2: Alphabetical by last name—without using words!

Round 3: Birthday—again, no words!

Objectives

01

Patience

Ability to wait without getting upset

02

Teamwork

Working together to accomplish one goal

03

Integrity

Doing what you are supposed to do, even when no one is looking

04

Concrete skills

Mixing and pouring

Materials Needed

- Computers/tablets
- Safety glasses
- Concrete mix
- Cups
- Stirring sticks
- Vessel for mold
- Rope/Materials to inlay
- Shape set

WATCH

[https://www.youtube.com
/watch?v=v-aqazCa4So](https://www.youtube.com/watch?v=v-aqazCa4So)

CIVIL CONSTRUCTION CAREERS

Building roads and bridges

Cement Mason

Builds structures from concrete

Cement Pourer

Drives cement truck and oversees cement leaving truck

Cement Laborer

Distributes cement within allotted area

Concrete Finisher

Levels concrete

Operator Engineer

Operates heavy equipment needed to construct roads

Civil Engineer

Plans roads, bridges, and other projects

Why a career in construction?



80% of new skilled-trade jobs require less than a year of schooling.



Nearly 80% of construction businesses are struggling to fill skilled labor positions.

Associated General Contractors of America

Average starting salaries compared:

\$41,200



BUSINESS

\$36,900



HISTORY

\$34,700



PSYCHOLOGY

\$33,800



EDUCATION

\$48,110



SKILLED TRADE

Today's project: Concrete doorstep OR Planter



You will form the concrete, choose your design, inlay materials, and wait for it to dry!



But first, SAFETY

- Safety glasses on when “on-site”
- Be careful
- Stay in your area
- Clean up after yourself



Process

First



Then



Process

Next

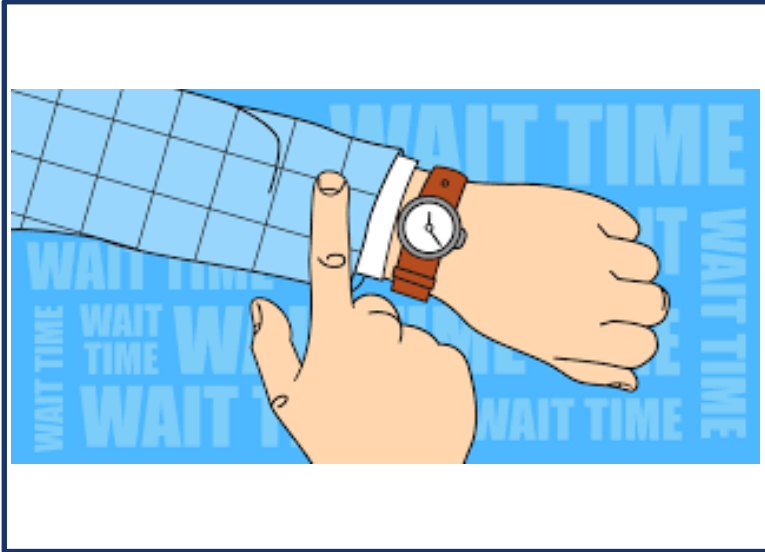


Then



Process

Next



Last





"If opportunity doesn't knock, build a door."
-Milton Berle

CAREER QUIZ

<https://indiana.byf.org/>

Menu>Career Quiz

Small Group Discussion

- Share your results with your group.
- Do any of you have jobs in common?
- Were you surprised at all? Why or why not?
- Which job result are you most excited about? Why?



Whole Group Discussion

- What were your three most exciting jobs?
- Why were they exciting?





Club overview



Session 1

Concrete doorstep/planter

Session 2

Wooden Catapults

Session 3

Bridges

Session 4

Job Site Visit

Session 5

Picnic Table

Session 6

Paint



Roles

Project Manager

- Oversees project
- Manages team
- Gives directions
- Timekeeper

Laborer

- Checks for safety
- Uses tools
- Monitors area



Project Manager Game

Roles

- 1 person is the Project Manager
- Everyone else is a Laborer

Goal

The project manager will accurately communicate the picture and the laborers will recreate it. Only the laborers are able to touch the materials.



The background features a stylized cityscape with various buildings in shades of blue, brown, and white. A white banner is positioned in the center, containing the text 'JOB' and 'EXPLORATION'.

JOB

EXPLORATION



PLAN IT



BUILD IT



FINISH IT

INDOT Speaker

Plan It: Estimator

Average Salary: \$35,00 to \$60,00 to \$100,000+

Description: Collect information to determine the amount of time, money, materials, and labor a build will take. Create bids based on analyzing numbers and calculating total cost.

Education Options: Bachelor's degree without experience, or high school diploma if coming from construction field

Qualifications: Research, ability to find trends and patterns, perform under pressure, problem solver





Plan It: Project Manager

Average Salary: \$46,00 to \$66,000 to \$110,000+

Description: Keep projects running on time and on budget. Plan, coordinate, budget, and supervise projects from development to completion.

Education Options: Bachelor's degree and on the job training

Qualifications: Personable, persuasive, creative, perform under pressure, problem solver, detail oriented



Build It: Cement Mason

Average Salary: \$56,784

Description: Use bricks, concrete blocks, and natural stones to build attractive, durable surfaces and structures. Masons create buildings, walls, and roads!

Education Options: Technical School, Community College, Registered Apprenticeship Program, and Industry Training Program

Qualifications: Strong work ethic, dependability, basic math skills



Build It: Operator Engineer

Average Salary: \$58,429

Description: Clear and grade land for the construction of roads, buildings, bridges, airport runways, power generation facilities, dams, levees, and other structures.

Education Options: Technical School, Community College, Registered Apprenticeship Program, and Industry Training Program

Qualifications: Mechanical aptitude, experience operating mobile equipment (such as farm tractors), good physical condition, sense of balance, coordination

Wrap Up

- Why did you join construction club?
- What was your favorite career opportunity from the quiz?
- How much fun did you have today?

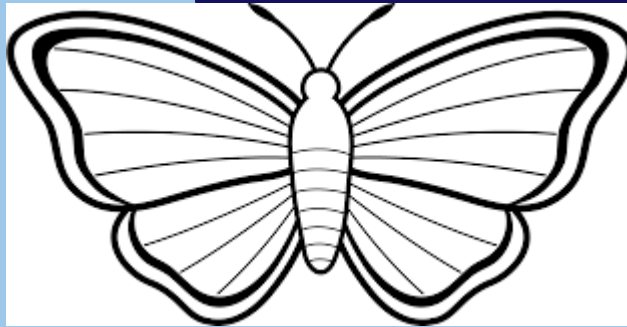
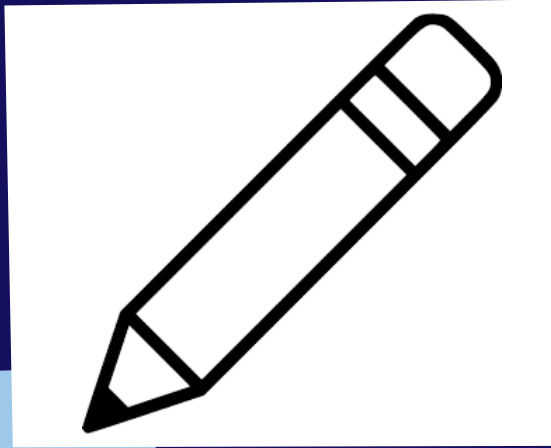


Google form:

<https://forms.gle/AaaEC3pT6yhThqNL8>



Next session:



- Bring a picture (no bigger than 6x6) as a design for your string art project.
- The simpler the design, the better your string art will turn out.