

# BUILDING BONANZA

5 DAYS OF THEMED SCHOOL-AGE  
SUMMER CAMP LESSONS

**BEST**  
**DAY**  
**EVER!**

Find more at:  
[BESTDAYEVER.FUN](http://BESTDAYEVER.FUN)

# BUILDING BONANZA

Get ready to discover skyscrapers, excavations, and construction like never before! Building Bonanza is a hands-on school-age lesson plan that encourages students to construct knowledge through thoughtfully planned activities and active exploration of their environment. The class will learn about construction through history, physics, and through hands-on activities that will blow their minds! While the lesson plan incorporates many different Pennsylvania Learning Standards, it focuses on the key learning area of "History and Science." Specifically, students will engage in learning activities that meet the PA Standard Areas: World History, Geographic History, and Arts and Humanities.

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## SCHEDULE

### DAY 1

ARRIVAL ACTIVITY	20 MINUTES
READY, SET, LEARN	45 MINUTES
HANDS-ON ACTIVITY - SKYSCRAPER SKELETONS	30 MINUTES
BREAK/SNACK TIME	15 MINUTES
LET'S GET MOVING - ROLL THE DICE RACE	45 MINUTES
HANDS-ON ACTIVITY - DESIGN YOUR OWN SKYSCRAPER!	45 MINUTES
BREAK/LUNCH TIME	45 MINUTES
HANDS-ON ACTIVITY - CARD TOWERS	30 MINUTES
SOCIAL-EMOTIONAL LEARNING - MANY HANDS MAKE A LOAD LIGHT	45 MINUTES
HANDS-ON ACTIVITY - GROWING SKYSCRAPER	45 MINUTES
WRAP UP/GOODBYES	15 MINUTES
LATE PICK-UP	

### DAY 2

ARRIVAL ACTIVITY	
READY, SET, LEARN	45 MINUTES
HANDS-ON ACTIVITY - POMPOM SHOOT	30 MINUTES
BREAK/SNACK TIME	15 MINUTES
LET'S GET MOVING - WRECKING BALL BOWLING	45 MINUTES
HANDS-ON ACTIVITY - WRECKING BALL PHYSICS	30 MINUTES
BREAK/LUNCH TIME	45 MINUTES
HANDS-ON ACTIVITY - WRECKING BALL OPPOSITES	45 MINUTES
SOCIAL-EMOTIONAL LEARNING - ANGER	45 MINUTES
HANDS-ON ACTIVITY - DEMOLITION FUN	45 MINUTES
WRAP UP/GOODBYES	15 MINUTES
LATE PICK-UP	

### DAY 3

ARRIVAL ACTIVITY	
READY, SET, LEARN	45 MINUTES
HANDS-ON ACTIVITY - BLUEPRINTS	30 MINUTES
BREAK/SNACK TIME	15 MINUTES
LET'S GET MOVING - CATAPULT VOLLEYBALL	45 MINUTES
HANDS-ON ACTIVITY - CATAPULT CONSTRUCTION	30 MINUTES

BREAK/LUNCH TIME	45 MINUTES
HANDS-ON ACTIVITY - MEASURING MATH	45 MINUTES
SOCIAL-EMOTIONAL LEARNING - IT TAKES A TEAM	45 MINUTES
HANDS-ON ACTIVITY - BRICK MASON	45 MINUTES
WRAP UP/GOODBYES	15 MINUTES
LATE PICK-UP	

## DAY 4

ARRIVAL ACTIVITY	
READY, SET, LEARN	45 MINUTES
HANDS-ON ACTIVITY - WATTLE AND DAUB CONSTRUCTION	30 MINUTES
BREAK/SNACK TIME	30 MINUTES
LET'S GET MOVING - CLOTHESPIN TAG	45 MINUTES
HANDS-ON ACTIVITY - POST AND LINTEL CONSTRUCTION	30 MINUTES
BREAK/LUNCH TIME	45 MINUTES
HANDS-ON ACTIVITY - WEIGHT RELIEVING TRIANGLE	45 MINUTES
SOCIAL-EMOTIONAL LEARNING - VISION BOARD	45 MINUTES
HANDS-ON ACTIVITY - CANTILEVER GAMES	45 MINUTES
WRAP UP/GOODBYES	15 MINUTES
LATE PICK-UP	

## DAY 5

ARRIVAL ACTIVITY	
READY, SET, LEARN	45 MINUTES
HANDS-ON ACTIVITY - SOAP CARVING	30 MINUTES
BREAK/SNACK TIME	15 MINUTES
LET'S GET MOVING - MOVING EARTH	45 MINUTES
HANDS-ON ACTIVITY - TUNNEL TIME	30 MINUTES
BREAK/LUNCH TIME	45 MINUTES
HANDS-ON ACTIVITY - SOIL STUDIES	45 MINUTES
SOCIAL-EMOTIONAL LEARNING - WHY HELMETS?	45 MINUTES
HANDS-ON ACTIVITY - GRAND PROJECTS	45 MINUTES
WRAP UP/GOODBYES	15 MINUTES
LATE PICK-UP	

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# MATERIALS LIST

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- Drinking straws
- Poster tack or other “welding sources”
- Cardboard bases
- Dice
- Foil or silver paper
- Glue
- Black marker
- Paper (assortment)
- Pencils
- Bowls
- Chairs
- String
- Small ball
- Duct tape
- Scissors
- Decks of cards
- Crayons
- Long paper
- Multimedia player
- Cardboard rolls
- Poster board
- Masking tape
- Recycled plastic bottles
- Pompoms
- Nylon stockings
- Book: *You're Not Bad, We All Get Mad* by Kellie Carte Sears
- Pinata
- Water balloons
- Box towers
- Beach Ball
- Blankets
- Craft sticks
- Rubber bands
- Hot glue
- Bottlecaps
- Small soft objects
- Rulers
- Play dough
- Air drying clay
- Twigs, twine, and bark
- Clothespins
- Foam or large blocks
- Flashlights
- Plastic cups
- Flat cardboard
- Colored pencils
- Jenga™
- Pick Up Sticks™
- Interlocking building bricks
- Ivory soap®
- Carving tools such as plastic spoons, knives or engraving sticks
- Gloves
- Large cardboard boxes
- Mulch, sand, dirt, gravel, clay
- Cardboard tubes
- Small objects such as action figures, cars, or other small items
- Plastic spoons
- Optional: small child's plastic bat
- Optional: eye protection
- Optional: helmets
- Optional: tacky glue
- Optional: seeds

# SHOPPING LIST

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# DAY 1 – SKYSCRAPERS

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## ACTIVITY/CONCENTRATION

### EARLY DROP OFF – ARRIVAL ACTIVITY

During this free time, students will select and use toys or games associated with the daily theme.



## DURATION/SCHEDULE

180 minutes – 6 to 9 a.m.

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## ACTIVITY/CONCENTRATION

### READY, SET, LEARN

Use the following fun facts about skyscrapers to lead a group discussion:

#### Fun Facts:

- Did you know that there are new skyscrapers with record breaking heights going up every year?
- Did you know that a skyscraper needs to be inspected every month to make sure it is safe?
- Did you know that Skyscrapers are constructed with a steel base structure called an exoskeleton?

#### Industrial Revolution: (The beginning of new construction methods)

- During the time called the Industrial Revolution, inventions began to meet the daily needs of the people. There was a second wave of inventions called the Second Industrial Revolution. During the Second Industrial Revolution, a metal called steel was manufactured and mixed with iron making the metals a strong combination. Steel was used to build structures everywhere.
- American companies began to test a new metal process called the **Bessemer process**. Steel mills were created to make steel beams but placed thousands of workers in dangerous conditions around molten metal heat.

#### Skyscraper Facts:

- The first “tall” building was 10 stories high, called the Home Insurance Building. The location of the Home Insurance building was in Chicago, Illinois. The Home Insurance Building was constructed in 1885 and was made from vertical and horizontal steel beams.
- Why was steel used? Steel metal was lighter weight, stronger, and could withstand wind and fire better than the wooden structure of earlier years.
- Chicago, *not New York*, was the first to build multiple tall buildings. Engineer William LeBaron Jenney was hired to create a design that would be fireproof. After a mass fire swept through Chicago, burning the city down, more steel skyscrapers went up. New York didn’t start to build tall towers until 1890.
- The Tower building was the first skyscraper to be built in New York City at 20 stories high, or 300 feet high.
- The Empire State Building in New York City held the World record from when it was completed in 1931 to 1971 at 102 stories high or 1,454 feet in height.
- The Empire State Building wasn’t constructed like buildings are constructed today with machines to lift heavy beams into place. The Empire State Building was constructed one steel beam at a time with the hands of construction workers. (See Photos in Additional Resources link)
- The tallest building in the world is the Burj Kalifa in Dubai standing at 2,717 feet tall with 163 floors.