









Are you ready to practice and prove your skills as a LEGO  $_{\!\!\! R\!\!\! R}$  builder?



### 1:Minifigs

**The Quest:** Builders will make a minifigure scene that shows off their ability to create awesome characters and place them into a scene that displays an frozen moment in time from a "medieval knight face off" (or your own chosen theme).

**Learning Objectives:** Builders will practice time management, communication skills, and resource sharing while also growing their imaginations.

**Learning Connections:** Builders will have to access historical knowledge of the medieval period and their storytelling skills.

Supplies Needed: LEGO Minifigure Pieces and LEGO Baseplates
BYOL (Bring Your Own LEGO) or buy baseplates at Dollar Tree and minifig pieces from Facebook Marketplace or Brick Books.

Steps	Minutes	Builders?
Show off LEGO space as builders arrive	5	all
Introduce yourselves and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above	5	all
Spend time focused on choosing the bodies, heads, hairs/hats/helmets, and accessories to make at least 4 minifigs	20	individual
Spend time focused on placing the 4 minifigs into a scene where each character is in an action pose	20	individual
Each builder explains their scene and shares one thing they like about another builder's scene	5	all







**The Quest:** Builders will make a collaborative MEGA build of the biggest castle the group can make that challenges them to think big, work as a team, and plan ahead.

**Learning Objectives:** Builders will practice time management, communication skills, and teamwork while also growing their imaginations.

**Learning Connections:** Builders will have to access historical knowledge of the medieval period and their engineering skills.

**Supplies Needed: LEGO Pieces**BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks at Dollar Tree and from Facebook Marketplace.

Steps	Minutes	<b>Builders?</b>
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above	5	all
Spend time dreaming up an overal vision for the MEGA build and delegate tasks to make big sections of the castle	5	all
Build the big sections like walls, a gate, towers, etc.	20	teams
Work together combining all the sections of the build into one MEGA build (this will likely require some adjustments)	20	all







### 3:MICRO

**The Quest:** Builders will make a MICRO scene that challenges them to focus on details and limit their build to no more than 50 grams of overall weight.

**Learning Objectives:** Builders will practice rule following, lateral thinking (or using pieces in non-obvious ways), and placing limits on themselves.

**Learning Connections:** Builders will have to access historical knowledge of the medieval period and practice their skills for counting and weighing objects.

Supplies Needed: LEGO Pieces and a scale
BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks at Dollar Tree and
from Facebook Marketplace. Borrow a scale from a science classroom.

Steps	Minutes	<b>Builders?</b>
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above and demonstrate how to use the scale	5	all
Spend time building on a small scale with a mandatory "weigh in" after 20 minutes to keep builders on track	20	individual
Spend time refining the MICRO builds so that they gain more details while staying within the weight limit	20	individual
Each builder explains their scene and shares one thing they like about another builder's scene	5	all







# 4:Mechanical

**The Quest:** Builders will make a working catapult by incorporating a rubber band into their design (We highly recommend that you pre-build an example catapult. Brick Books has provided a design that you can use as a starting point). This is a difficult challenge. Decide whether you want to work as a group or individually.

**Learning Objectives:** Builders will practice experimentation and trial and error, instruction following, and collaboration.

**Learning Connections:** Builders will have to become engineers and think through the forces involved with a catapult.

**Supplies Needed: LEGO Pieces and rubber bands** 

BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks at Dollar Tree and from Facebook Marketplace. You may purchase catapults from Brick Books.

Steps	Minutes	Builders?
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above and demonstrate how a catapult works	5	all
Spend time building simple catapults that have a swinging arm and a way to stretch the rubber band	20	individual
Spend time building a structure around the arm and rubber band so that your catapults can handle the force of a launch	20	individual
Perform a final test of the catapults (your MBQ 2 castle could be a great target)	5	all







# 5:Motion

**The Quest:** Builders will make a working boat that actually floats and has the ability to be pushed over water by wind (a fan).

**Learning Objectives:** Builders will practice experimentation and trial and error, friendly competition, and openness to new ideas

**Learning Connections:** Builders will have to become engineers and think through buoyancy as it applies to LEGO, especially how to minimize leaks, displace water with air, create plenty of surface area, and consider balance.

Supplies Needed: LEGO Pieces, tub of water, and fan BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks at Dollar Tree and from Facebook Marketplace.

Steps	Minutes	<b>Builders?</b>
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above and demonstrate buoyancy with things that float and sink	5	all
Spend time planning out the ships by considering classic designs like canoes, rafts, pontoons, sailing ships, etc.	5	individual
Spend time building and testing the boats while learning from each other's successes and failures	30	individual
Perform a final test of the boats then have each builder say one thing they like about another builder's boat	10	all







### 6:Muscle

**The Quest:** Builders will make a working bridge that fits a standing minifigure beneath it and supports their weight. This is a group challenge. We recommend that you pre-build your own working bridge. WARNING: you are likely to break LEGO pieces.

**Learning Objectives:** Builders will practice time management, experimentation, and rule following.

**Learning Connections:** Builders will have to become engineers and think through how to make a super strong structure with a minimal amount of breaking points.

Supplies Needed: LEGO Pieces and one Minifig BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks at Dollar Tree and from Facebook Marketplace.

Steps	Minutes	Builders?
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO before splitting into teams	5	all
Describe the Master Builder Quest (MBQ) using the info above and demonstrate a working bridge.	5	all
Spend time planning out the build and measuring the size needed to go over the minifig	5	teams
Spend time building and testing the bridges while focusing on strong footings and a solid bed for the bridge	35	teams
Perform a final test of the bridges by having the smallest up to the biggest person standing on the bridge, if you all are brave enough to test your bridges' limits	5	all





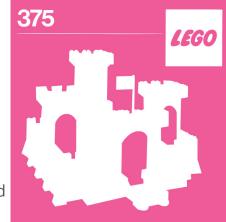


# 7:Method

**The Quest:** This is a unique challenge. The builders will recreate a digital version of something they've already built IRL by using the free <u>Bricklink Studio software</u>. You will need to familiarize yourself with Bricklink Studio in preparation for this quest.

**Learning Objectives:** Builders will practice spacial reasoning, time management, and turn taking.

**Learning Connections:** Builders will have to become designers and computer engineers as they navigate the software and re-build something they've already made.



Supplies Needed: Computer with <u>Bricklink Studio</u> installed and projector or large monitor

Steps	Minutes	Builders?
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above and demonstrate Bricklink Studio	5	all
Give each builder a set timeframe to "play" with the software and select from the digital pieces to build their creation on screen (everyone else should be refining the previous build that they are digitally recreating	20	individual
Give each builder a set timeframe to refine their digital build	20	individual
Ask the builders why this skill is important	5	all







## 8:Magical

**The Quest:** This is the most abstract quest. The builders will create a "magical" object by using bricks to depict an optical illusion or dynamic element like a waterfall, wave, explosion, flame, star, rainbow, blackhole, or whatever else they can think up.

**Learning Objectives:** Builders will practice abstract thinking, lateral thinking (using pieces for unintended purposes), and time management.

**Learning Connections:** Builders will have to draw on knowledge of the "magical" ways in which our world and universe works.

Supplies Needed: LEGO Pieces and Baseplates
BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks and baseplates at
Dollar Tree and from Facebook Marketplace.

Steps	Minutes	Builders?
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above	5	all
Spend time getting artistic while building something that shows a dynamic force or even a make-believe force, as long as the build using the 3D sculpture nature of LEGO building to reveal, disguise, or surprise in some way	40	individual
Builders explain their creation and say one thing they like about another builder's creation	5	all





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# 9:1/1ode1

**The Quest:** The builders will create a brick replica of a familiar thing, while attempting to capture the recognizable appearance of that thing and its full range of motion. We recommend that your subject be a horse and that you provide a toy horse and pictures to mimic.

**Learning Objectives:** Builders will practice observational skills, lateral thinking (using pieces for unintended purposes), and time management.

**Learning Connections:** Builders will have to draw on knowledge wildlife and anatomy.

**Supplies Needed: LEGO Pieces and Example images or objects**BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks and baseplates at Dollar Tree and from Facebook Marketplace.

Steps	Minutes	<b>Builders?</b>
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above and set a size parameter like about the size of a fist or hand	5	all
Spend time getting artistic in order to build a horse (or whichever subject you choose) while focusing on all the elements of a horse and how a horse moves and how to recreate that movement with LEGO	40	individual
Builders explain their creation and say one thing they like about another builder's creation	5	all







### 10:Myth

**The Quest:** The builders will combine every skill they've been practicing to create an epic scene that includes minifigs and anything else they might build to tell an incredible story. Choose whether you want to do this project individually or as a group. You may even want to include the things that have already been built as elements in the scene(s).

**Learning Objectives:** Builders will practice time management, synthesizing diverse ideas, and focus on a goal.

**Learning Connections:** Builders will have to utilize their stortelling skills and demonstrate a wide range of knowledge.

**Supplies Needed: LEGO Pieces** 

BYOL (Bring Your Own LEGO) or buy LEGO compatible bricks at Dollar Tree and from Facebook Marketplace.

Steps	Minutes	<b>Builders?</b>
Show off past MBQ creations as builders arrive	5	all
Introduce any new builders and share favorite type of thing to build with LEGO	5	all
Describe the Master Builder Quest (MBQ) using the info above	5	all
Spend time building an epic scene that includes minifigs in action as well as mechanical, moving, modeled, or magical elements that draw from their previous builds or things builders might borrow from other's builds	40	individual
Builders explain their creation and say one thing they like about another builder's creation	5	all





