Lego Challenges (STEM & Innovation)

Sections

Joey Scouts | Cub Scouts | Scouts | Venturer Scouts | Rover Scouts

Scouts VICTORIA

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Challenge Areas

COMMUNITY | CREATIVE | OUTDOOR | PERSONAL GROWTH

Scout Method Elements

COMMUNITY INVOLVEMENT | LEARNING BY DOING | NATURE AND THE OUTDOORS | PROMISE AND LAW | PERSONAL PROGRESSION | PATROL SYSTEM

SYMBOLIC FRAMEWORK | YOUTH LEADING, ADULTS SUPPORTING

SPICES Growth Areas

CHARACTER | EMOTIONAL | INTELLECTUAL | PHYSICAL | SOCIAL | SPIRITUAL

The Adventure

Pull out the Lego and put your construction skills to the test with a series of Lego challenges!

Plan

1. Investigate different shapes and their impact on aspect such as building strength and aerodynamics.
2. Gather a range of Lego pieces. You can have as little or as much Lego as you have access to, it might just change the difficulty of the challenge.
3. Make sure you are aware of the safety considerations needed for using Lego.
4. Pick a challenge (or challenges) from the list below and race against the clock or your patrol.

Challenges

- Tallest tower - set a time limit and see who can build the tallest tower.
- 100 bricks - make something that uses exactly 100 bricks.
- Floating builds - pick a theme such as boats, pirates, sea creatures, etc, and build something that will float in water. Make sure to test this.
- Flying builds - make something that flies.
- Eyes closed - put your other senses to the test and build a specific object in 5 minutes with your eyes closed or blindfolded.
- Catapult - design and build an operational catapult and see how far you can shoot a paper ball.
- Bridges - build a bridge to span the longest distance or hold the most weight.

Do

1. Make sure that you are using your Lego in a convenient and safe location.
2. To ensure a fair competition, make sure that everyone has access to the same Lego bricks (where possible) and that all the Lego pieces have been separated.
3. Get, set, build.
4. Compare your builds with others.

Review

1. Did you manage to successfully complete your Lego challenge/s? If not, what went wrong?
2. What did you learn from doing your Lego challenge/s? What did you enjoy about it?
3. What could you do differently to improve your design in your Lego challenge/s?

Safety

- Lego can include small pieces which may pose a chocking hazard if swallowed. Ensure adult supervision for younger sections.
- Lego pieces can be very painful if stood on. Make sure to wear shoes around your Lego builds and tidy up all the Lego afterwards.
- Different challenges may pose different risks. Make sure to consider the risks specific to the challenges your are doing. For instance, catapults and flying builds may have projectiles and floating builds pose water risks.

Variations

- This Challenge Card has been inspired and adapted from the Scouts Victoria Lego Challenges, which contains some other challenge ideas which may fall better into other SIAs.
- Try multiple challenges and award points for the top three designs to determine who the ultimate Lego builder in your Unit or Patrol is.
- This Challenge Card can pair well with Lego Car Races.