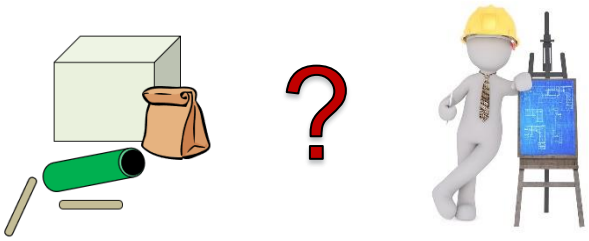
DESIGN A HOUSE

A great project for young architects in training!



Curriculum topics

- Engineering/Design
- Problem Solving

Subjects

- Engineering
- Physical Science

Grade range: K – 2

Who we are: Resource Area for Teaching (RAFT) helps transform the learning experience by inspiring joy through hands-on learning.

Explore a variety of materials and think about what is possible to build your dream house! Let your imagination go wild as you engage in the design process and think like an architect!

Example: Simple farmhouse

Share Your feedback!
http://bit.ly/RAFTkitsurvey

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Materials

Materials in the kit may vary but generally, this kit contains the following:

- Craft sticks, jumbo (6)
- Craft sticks, regular (6)
- Paper bags, small (2)
- Boxes, small (2)
- Cardboard tubes (2)
- Variety of stickers
- Optional: Colored of patterned paper
- Not included: Glue/tape, pencil crayons, markers, scissors

WARNING: CHOKING HAZARD – Small parts not for children under 3 yrs.

To Do and Notice

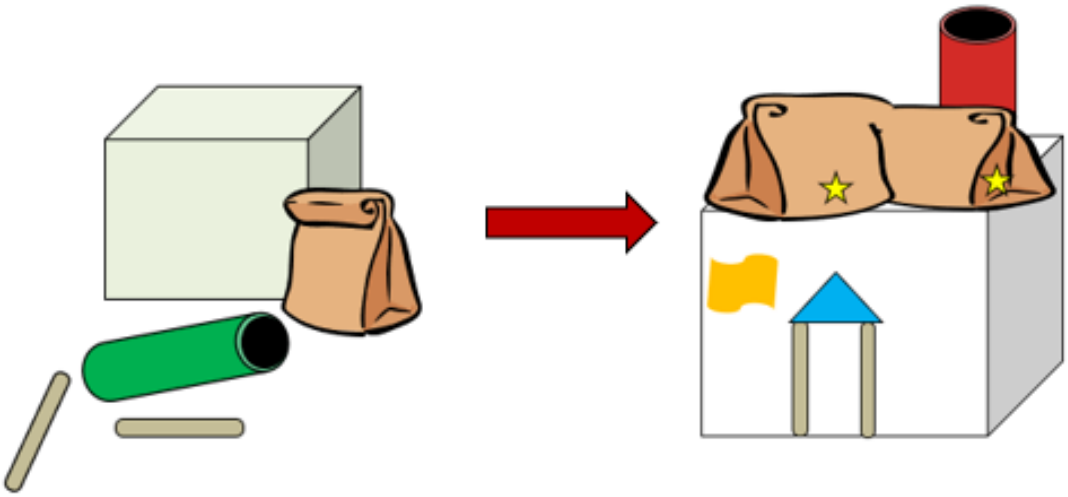
1 Look at the available building materials. Think about the external (outside) features of a house such as doors, windows, roof, chimney, porch, and trim. Also consider things like trees, grass, bushes, flowers, animals/pets, etc. (landscaping).

2 Design a plan for the house that includes the number and location of the doors, windows, and other features. Optional: draw or sketch out the plan.

3 Select the materials needed according to the plan and begin building the house. Examine (inspect) the house and make any desired changes (it's your house, so you can change it!).

4 Use crayons, markers, and stickers to decorate the house. Add other elements, such as a mailbox, house number, or other features that come to mind.

5 **Share** your house design with RAFT! Submit photos/video via email at education@raft.net or on social media (Facebook, Twitter, Instagram).



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Core Content Skills:

Science & Engineering (NGSS)

Developing and Using Models, Developing Possible Solutions, Optimizing the Design Solution, Defining and Delimiting Engineering Problems

CA Visual Arts

Generating and Conceptualizing Artistic Ideas and Work

Desired Results Development Profile (DRDP)

Gross & Fine Motor Skills, Physical Development, Problem Solving, Memory, and Knowledge

Social Emotional Learning

- Self-awareness
- Self-management
- Responsible decision-making

The Content Behind the Activity

This activity provides an opportunity to act like an architect and apply critical thinking skills to create an initial design and then build, design, evaluate the result, and make modifications as needed. This is a prime example of using the engineering design process to generate and evaluate solutions for a need or problem to be solved.

The variety of materials are different based on their attributes (characteristics). Users of this kit draw on their own experience with houses to decide which materials work best to represent aspects of the house to be modeled. In so doing, users apply fine and gross motor skills to manipulate the materials and incorporate them in the design. In other words, users engage in a degree of material analysis to model parts of a house (artistic expression) that best resemble the users create based on their personal experience. Along the way, other skills are practiced such as persistence, creativity, innovation, and collaboration (if project is done with others).

Reuse

This kit uses 100% reusable materials designed for other uses. To continue making a positive impact in reducing waste, reuse these materials in other projects. Additionally, any unused materials can be collected and delivered back to RAFT.

Feedback

Please comment on this kit by taking this short survey: http://bit.ly/RAFTkitsurvey. Let us know of any material concerns (missing, broken, or poorly fitting parts) as well as any suggestions for improvement.

Visit https://raft.net to view related activities!

Building Center
Design a Town
Sand Mosaic
Starchy Structures

Resources

- Architecture lessons for kids - https://bit.ly/2RPnV6z
- Architecture Adventure - https://bit.ly/3a7bElr

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