

EXPLORATORY TASKS STUDENT SAMPLES

CLUSTER: Architecture and Construction

PATHWAY: Design and Pre-construction Pathway

Specialists in this pathway turn a concept into a set of plans that guide other construction professionals as they continue the building process. These plans – or blueprints – include not only the layout for the structure, but also include plans for wiring, plumbing, etc.

EXPLORATORY TASK: Create a floorplan for a tiny house, one with less than 400 square feet. Find a sample online to use as a model. How do they use symbols to communicate? Use graph paper to create a sketch of your idea. Include a key to the scale, i.e., $\frac{1}{4}$ inch = 1 inch. Consider:

- What is the best use of space?
- How do you communicate the location of doors, appliances, etc.?
- What type of materials would you use?
- What is the total square footage?

OBJECTIVE: Introduce students to blueprints and technical drawings and their use in architecture and construction.

TEACHER SUPPORT: Collaborate with an architect or construction professional or a CTE construction teacher.

STUDENT SUPPORT: Provide links, examples, checklist and/or a template for students to use.

LEARNING EXTENSIONS:

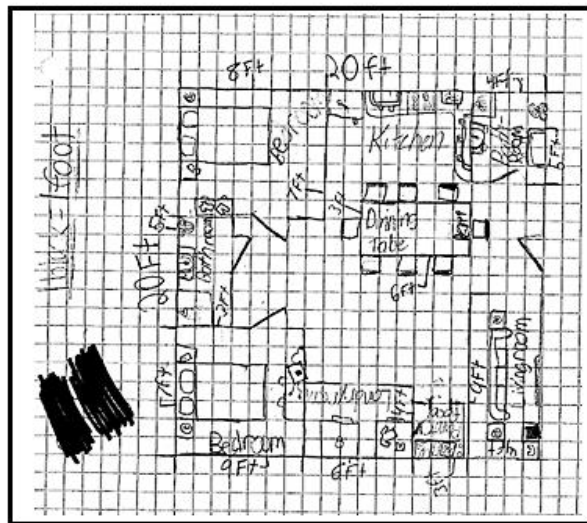
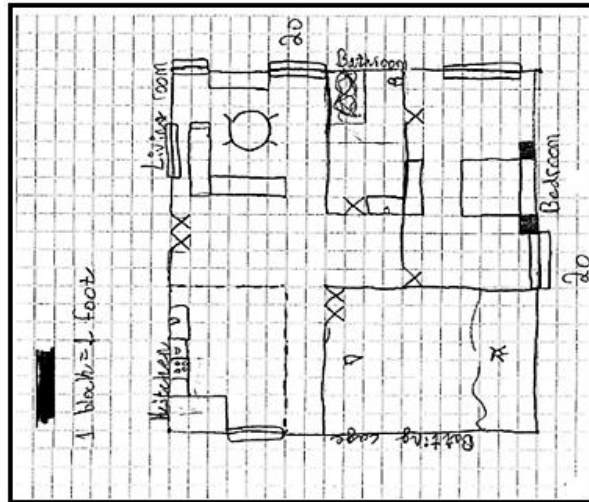
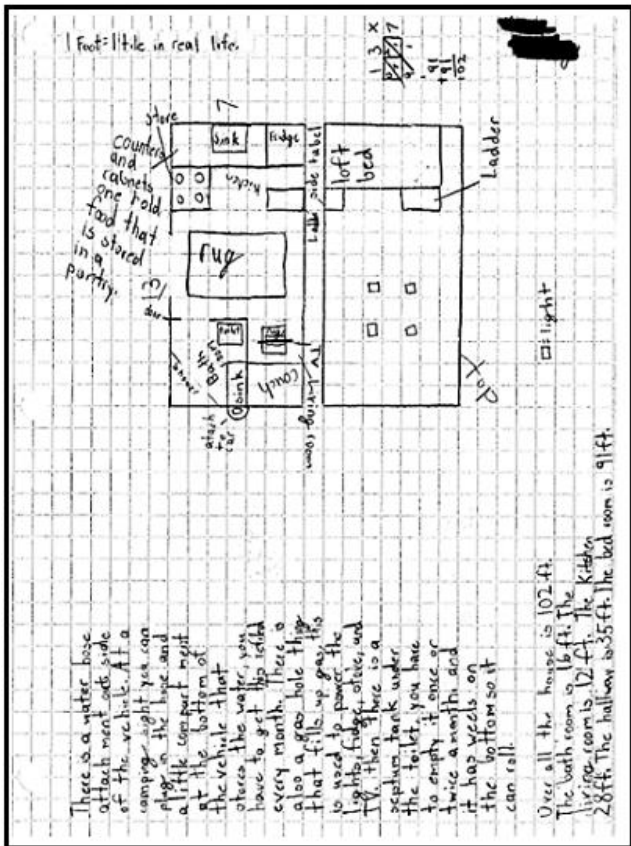
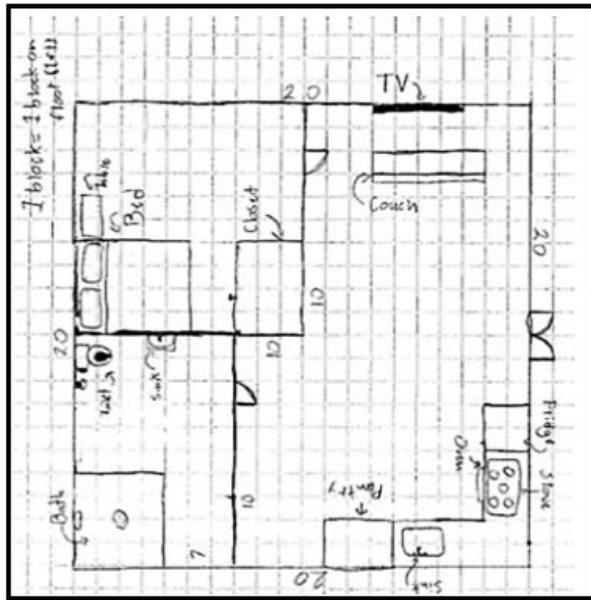
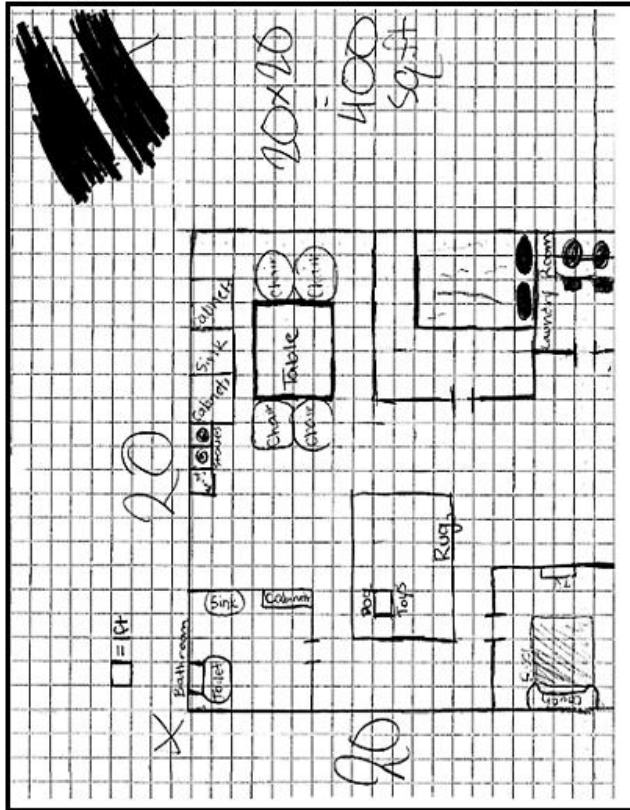
- Invite an architect or construction professional or CTE teacher to discuss the types of blueprints and technical drawings and their use in architecture and construction.
- Research and discuss the different types of blueprints or technical drawings:
 - Site plan
 - Elevation drawing
 - Mechanical, electrical or plumbing drawing
- Lead a discussion connecting school subjects and this pathway.
- Lead a discussion about personal qualities of an architect or construction professional.
- Identify and research a career within this pathway.

CONNECTIONS TO KENTUCKY ACADEMIC STANDARDS

- Career Studies: ES.1.9, CI.2-8
- Mathematics: KY.7.G.1
- Reading and Writing: R1.4

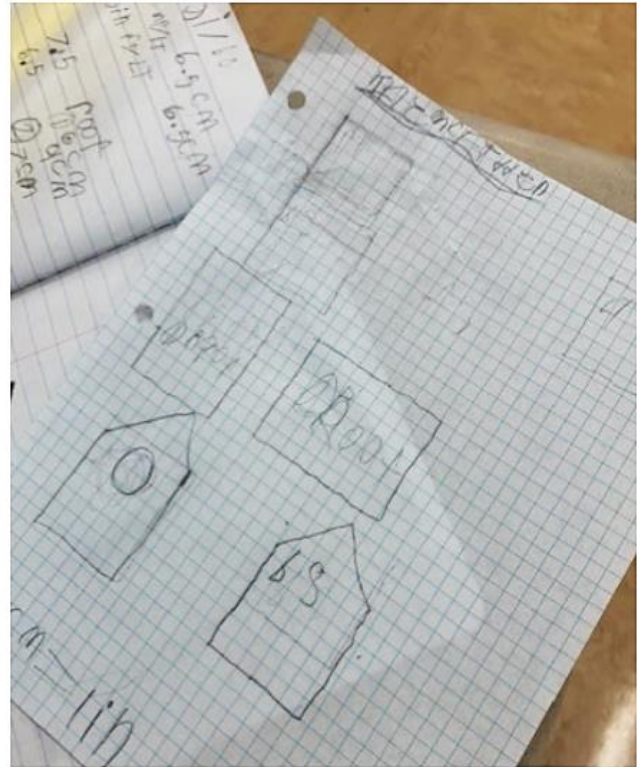
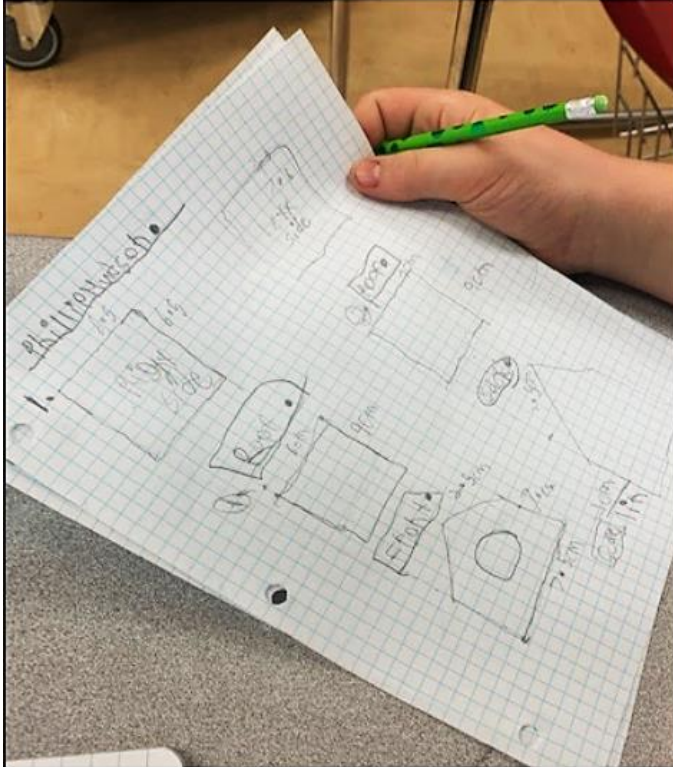
NOTE:

- These samples represent students' first introduction to authentic topics and skills related to a career cluster.
- A range of student performance is included within the complete body of work.



MODIFIED TASK: Provide precut birdhouse kits. Instruct students to draw the birdhouse design on graph paper, calculate the area of the birdhouse and include a key to the drawing, e.g., number of squares to an inch. Afterwards, students assemble the birdhouses with safety instruction and supervision.

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Is a Career in Architecture and Construction for Me?

Would you be interested in a career in Architecture or Construction? Below are knowledge and skill statements related to the careers in this cluster. Read each statement. Decide if this describes you by checking the Yes, No or Maybe box.

THINGS I LIKE TO DO	YES	NO	MAYBE
Read and follow blueprints and/or instructions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Picture in my mind what a finished product looks like	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with my hands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perform work that requires precise results	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Solve technical problems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visit and learn from historic or interesting buildings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Follow logical, step-by-step procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERSONAL QUALITIES THAT DESCRIBE ME	YES	NO	MAYBE
Curious	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good at following directions	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pay attention to details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good at visualizing possibilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient and persistent	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SCHOOL SUBJECTS THAT INTEREST ME	YES	NO	MAYBE
Math	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Science	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical classes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Did you check YES most often? If so, continue to explore careers and opportunities in this cluster. And don't forget to focus on your math and science classes to build the academic skills you need for these careers.

Did you check NO most often? If so, don't worry. There are hundreds of jobs to explore in the other 15 career clusters.

Did you check MAYBE most often? If so, continue to explore in this cluster as well as investigating how your skills and interests may be a good match in other clusters.

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