

Architects in Schools  
Residency Planning Form

School: Opal Charter School

Grade: 4<sup>th</sup> and 5<sup>th</sup>

Topic: All subjects

Teacher: Hannah Chandler

Architect: Crystal Sanderson

Residency Goals:

- Have the experience of learning from a professional in the field of architecture
- Have a meaningful, hands-on experience with STEM skills and concepts
- Begin to view the world through an architectural lens – see concepts relating to design, structure, and sustainability in the world around us
- Have experience with design, see a project through planning, implementation, and completion
- Focus on sustainability concepts

Possible Activities in Support of Goals:

- Energy / sustainability scavenger hunts
- Introduction to architectural vocabulary, models, tools, etc.
- Play with different materials for building
- Design a sustainable structure

Other Resources:

- The Children's Museum / Opal School building, inside and out
- Exhibit of Architectural Models at the World Forestry Center
- Books and picture books showing a wide array of buildings and architectural design

Planning Form:

**Session Number: 1**

**Date and Time: February 2 10:00 – 11:15**

Preparation: Create and copy architectural vocabulary sheet, gather examples of different buildings

**Classroom Session:** Introduction / Architectural Vocabulary Lesson

Activities:

Introduction:

- Crystal to introduce herself, interest in architecture, etc. Students introduce themselves
- Pass out a handout with architectural vocabulary words/concepts and definitions.
- Talk through some of the words/concepts as examples

Architectural Images Activity

- Spread images on the floor or a large table
- Each student to choose an image
- Students to write a description of the images using vocabulary and concepts

Conclusion:

Students to present back to the class

Time for questions and comments at the very end.

Teacher Follow Up:

Reflect with Crystal afterwards; plan/revise next steps based on lesson

Materials Needed:

See preparation

**Session Number: 2**

**Date and Time: February 9, 10:00 – 11:15**

Preparation:

Create a copy sheet with images of the Children's Museum from the outside

**Classroom Session: Sustainability / Onsite Field Trip, Part 1**

Activities:

Gather to review definition of sustainability and go over some sustainability features and vocabulary that students may see on scavenger hunt.

Split into two groups to look at the building and landscaping for sustainability. Take onsite field trip, stopping at several locations to discuss observations.

Conclusion:

Meet back in the classroom to share observations and questions

Teacher Follow Up:

Reflect with Crystal afterwards; plan/revise next steps based on lesson

Materials Needed:

See preparation

**Session Number: 3**

**Date and Time: February 16, 10:00 – 11:15**

Preparation: Design and copy sustainability scavenger hunt.

**Classroom Session: Sustainability / Onsite Field Trip, Part 2**

Activities:

Gather to review some indoor sustainability features and vocabulary that students may see on scavenger hunt.

Split into three groups to look at the interior of the building for sustainability.

Conclusion:

Meet back in the classroom to share observations and questions

Teacher Follow Up:

Reflect with Crystal afterwards; plan/revise next steps based on lesson

Materials Needed:

See preparation

**Session Number: 4**

**Date and Time: February 23, 10:00 – 11:15**

Preparation: Bring drawing sets, drafting tools, scales, trace paper, blueprints, paper dolls for students

**Classroom Session: Program, Plans, Elevations & Sections**

#### Activities:

The lesson will describe concepts of an architectural program, floor plans, reflected ceiling plans, elevations and sections. Architects to share drawing sets to show the students along with drafting tools and scales.

After previewing materials, students will be tasked with identifying what space they might be interested in improving in the school or museum. They will play with the floor plans and paper dolls to begin redesigning and / or structuring the space in which they are interested in.

#### Conclusion:

Explain that in the coming sessions they will build a model of the space they want to redesign for better learning environment / sustainability.

#### Teacher Follow Up:

Planning sheet for students to identify area of interest and sustainable features they want to change / improve. Also, put students in pairs for collaboration.

#### Materials Needed:

See preparation.

### **Session Number: 5**

**Date and Time: March 1, 10:00 – 11:15**

Preparation: 15 foam core bases cut to 12" by 12" prepared by Crystal; paper, tape, hot glue & hot glue guns gathered by Hannah

#### **Classroom Session: Concept Model**

#### Activities:

Begin by brainstorming list of sustainable features to include in model.

Examine examples of models of different types and pictures of models.

The students will be paired up based on their interest and will be asked to collaborate. They can build their own models and will be asked to join the models and collaborate on the in-between space again thinking about sustainable features. They will be on notice that they will present the models to the class in the next session and will need to discuss sustainable features.

#### Conclusion:

Reflect on work from today; look ahead to next steps

Teacher Follow Up:

Reflect with Crystal afterwards; plan/revise next steps based on lesson

Materials Needed:

See preparation

**Session Number: 6**

**Date and Time: March 8, 10:00 – 11:15**

Preparation: Supply any materials depleted in Session 5

**Classroom Session: Presentations and Feedback**

Activities:

Continue working on models with a focus on including sustainable features.

Halfway through, stop working to share designs, even if incomplete. In sharing, elicit feedback for refining designs. Students will reflect on their collaboration and how / why they chose the sustainable features selected.

Conclusion:

Students to determine final steps for their models.

Teacher Follow Up:

Time for students to finish models.

Materials Needed:

See preparation