

## PROJECT-BASED LEARNING

The Robertson Center at Success Academy

Success Academy's project-based learning units inspire students to become experts in a fascinating subject. Through real-world experiences and immersive lessons and activities, learners develop literacy skills and become strong and curious thinkers.

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# **OVERVIEW**

The Robertson Center at Success Academy is where educational thinkers and changemakers come together to advance learning for all children. Through programming and content, they aim to amplify what's working in Success Academy's K–12 schools, share lessons learned about creating strong education communities, and create space to learn with external peers. Project-based learning (PBL) is a critical component of Success Academy's elementary school literacy curriculum and supports the development of reading, writing, and verbal communication. Through projects, scholars engage with learning in ways that connect academic skills and knowledge to the real world.

Success Academy's PBL units are designed for scholars to immerse themselves in one topic from a cross-disciplinary perspective. During PBL lessons, scholars read rigorous shared texts, conduct their own research, and explore topics in their local community. At the end of each project, scholars present their creations and learnings to friends and families.

The Robertson Center has published 10 of Success Academy's PBL units, and more than 30 elementary schools are currently implementing these lessons as part of their literacy curriculum. The Robertson Center currently offers services around direct implementation as well as professional development webinars to support leaders and teachers.



### What Makes This Model Innovative?



#### **Rigorous Learning**

Project-based learning challenges scholars by setting rigorous learning objectives.
Scholars read complex texts and answer essential questions as they gain content knowledge and make progress on their projects.



#### Relevance

Project-based learning offers exposure to real-world topics and problems. Scholars go on relevant field studies to experience and learn about the world and their community.



#### **Active Self-Direction**

Project-based learning encourages self-direction and ownership. Scholars guide their learning and engage in self-reflection on their progress.

# **DESIGN**

### Goals

Project-based learning at Success Academy has clear intended outcomes for scholar learning.

	Scholars develop curiosity about the world and how it works and actively seek out knowledge.
	Scholars demonstrate proficiency in reading and content-specific knowledge and develop inquiry skills.
•	Scholars master habits such as time management, self-monitoring, and self-reflection.

## **Experience**

Across all PBL units, lessons are grounded in guiding questions that offer developmentally appropriate challenges and opportunities for inquiry and self-direction. Scholars engage in a variety of relevant activities to support their projects.

#### **Lesson Launch**

Scholars begin their lesson with a whole-class launch where the teacher engages the class in the day's work through a guiding question. An engaging launch can happen in many ways, but all share a few qualities. Launches should:

- Pique scholars' curiosity and keep their attention.
- Leverage prior knowledge or engage their personal experiences.
- Relate back to or foreshadow the lesson's purpose through a guiding question.

Launches are often quick—about five to seven minutes—and build on the content from the previous day, which helps scholars situate the day's learning. Through launches, scholars become interested in how lessons, guiding questions, and other class activities build on one another over the course of the unit. Making these connections is an essential component of mastering necessary content and skills.

For example, in the kindergarten "Farm to Table" unit, scholars spend 10 minutes exploring what can be found on a farm (or not!) by sorting images into a T-chart. In the third-grade "Iroquois and Lenape" unit, scholars are given a map and are told that the Iroquois and Lenape were the first people to inhabit the NYC region. With this new knowledge, they turn and talk to their partners to discuss what they already know. 

"Farm to Table" "Iroquois and Lenape"

#### Read to Learn

Scholars gain content knowledge by engaging in independent reading time, read-alouds, and whole-class discussions around a series of shared texts—something every scholar reads at the same time.

Each PBL unit recommends texts for students to explore in order to gain the background or contextual knowledge necessary to work through the unit's projects. Teachers decide which texts to highlight and how scholars will engage with them depending on the skills and needs of each scholar. The most common modes of engaging with shared texts are:

- **Read-Alouds:** Scholars lead a read-aloud of specific portions of a shared text, pausing to answer questions, expand their thinking, and make connections.
- **Independent Reading**: Scholars spend time reading and annotating the shared text on their own.
- **Small Groups:** Scholars are divided into groups with heterogeneous skills where they share read-aloud time and are guided by discussion questions.
- **Targeted Teaching**: The teacher pushes into independent reading time to support scholars 1:1 as needed. This is often preplanned, and the teacher supports with scaffolded comprehension questions.

For example, in the second-grade "Birds" unit, scholars engage with illustrative texts that bring learning to life. In this unit, scholars explore fiction and nonfiction texts to learn about how birds fly, their habits and skills, birdwatching as a hobby, and more. 

"Birds" Unit

### Writing and Journaling

Scholars spend time practicing their writing by responding to guiding questions or journaling. In order for scholars to engage with knowledge independently, project-based learning lessons promote writing every day. This activity supports scholars to process information and synthesize understandings on their own. It can also serve as a way to evaluate scholars' reading comprehension and reasoning skills.

Scholars often respond to creative or personal prompts that extend their thinking or encourage them to transfer knowledge across experiences. Reflecting on content personally through journaling reflections helps keep the content sticky and relevant. Responding to targeted questions helps teachers check scholars for accuracy and understanding of critical content knowledge.

The two common writing formats that complement each project are:

- **Free-form Journaling**: Scholars spend time reflecting on the day's activities. They often write about their experiences with connections, ideas, or challenges related to the content or the project.
- **Written Responses:** Scholars spend dedicated time responding to a content-specific question posed by the teacher (usually the day's guiding question). This exercise acts as an individual check-for-understanding around content and writing skills.

For example, in the third-grade "Immigration" unit, scholars keep journals for their research and writing. Throughout this unit, scholars hone their writing and comprehension skills by creating a class glossary of the most important immigration terms. This unit culminates in each scholar researching, writing, and publishing their own "expert book" on a topic related to immigration of their choosing. "Immigration" Unit Expert Book Assignment Overview

### **Project Work Time**

Scholars complete a series of projects during a single PBL unit, often spending multiple lessons working on the tasks that move one project forward. Every project builds on previous knowledge and skills and encourages scholars to get creative while grounded in facts and content-specific information. These projects often engage various modes of learning, including building and/or making, writing, and crafting. The goal of these is to provide learners with different ways of demonstrating their learning while honing their creativity.

Whether working in groups or independently, scholars engage in a few different activities to complete each of their projects:

- Scholars spend time planning their project work time. This can look like setting up daily to-dos, dividing up tasks among group members, or even evaluating their progress toward their final goal. Teachers can offer examples and provide daily support or check-ins.
- Scholars work together or independently to conduct research on the project, depending on the expected outcome. Research can range from reviewing information online to looking closely at learnings within shared texts or interviewing community members.
- Scholars **spend time creating and polishing their work** in order to showcase them to their friends and family during the PBL Museum or Showcase. This can look like building a suspension bridge to explore what building a real bridge might entail (in grade 3) to touching different types of flour and jotting observations to learn about the ingredients that make up different breads (in kindergarten).

For example, in the first-grade "Arctic" unit, scholars engage in projects and experiments that allow them to apply what they've learned. Activities include experiments to better understand why animals hibernate, building igloos to better understand adaptation and shelter in the Arctic, and working as a class to create a visual representation of their findings. "Arctic" Unit Hibernation Experiment Overview Building an Inuit Igloo Overview ABC Arctic Book Overview

#### **Field Studies**

Scholars take their learning beyond the classroom and explore local and regional places related to their projects' content. Each PBL unit contains three to five field study learning experiences that can range in time from 45 minutes to half-day trips.

These field study experiences bring learning to life. Field studies help scholars relate their learnings to the real world while exploring the contexts of local landmarks and important places around their neighborhoods or places nearby.

#### **PBL Museum and Showcases**

Scholars share their PBL experiences by hosting a joyful celebration of their learnings.

The culminating exhibition showcases scholars' project work and all that they've learned about their topics. Scholars should spend time preparing to present to museum visitors. Teachers should work with students to ensure that work is accurate, neat, and detailed.

On the day of the museum, families and community members are invited to view scholars' academic work, guests are guided by their scholars on a tour of the projects so everyone can share their excitement and learn from their expertise about the topic.

## **Supporting Structures**

Implementing Success Academy's PBL units will require changes to a few supporting structures.

Success Academy's PBL curriculum is grounded in rigorous learning objectives and requires a scholar-centered approach to learning.



CURRICULUM,
INSTRUCTION &
ASSESSMENT

Curiosity and inquiry are at the heart of the learning objectives for each PBL unit. Scholars' content knowledge and skills are grounded in challenging yet achievable learning objectives. Scholars engage with complex guiding questions that help scaffold their discovery and understanding of the content. By making choices about their projects, asking questions, and sharing ideas with peers and adults, scholars develop self-direction skills and habits.

Study Journals/Writing Suggestions Thinking Chart Template Sample Vocabulary List

# Successful project-based learning requires fostering productive adult mindsets around scholar-led learning.



Teachers must hold a growth-mindset approach to teaching and learning and believe that all scholars are capable and deserving of success. Scholars should own their learning, especially during PBL lessons and activities.

To accomplish this, teachers should know how to provide feedback, how to ask open-ended questions, and how to productively redirect scholars toward accurate learning. The Robertson Center offers materials for teachers to successfully prepare and deliver daily lessons and checks for understanding. These units offer lesson plans that promote scholar engagement and self-direction as well as tips and tricks to implement these PBL units successfully.



#### PBL lessons work best in longer learning blocks.

Scholars learn the thrill of becoming experts in a subject when they have extended time to immerse themselves in a fascinating topic from a

# SCHEDULE & USE OF TIME

cross-disciplinary perspective—including through field studies and art projects—in science, reading, writing, and math.



Community members are essential partners for making field studies a reality. Similarly, communicating with families about academic showcases early can ensure that scholars feel more supported.

FAMILY & COMMUNITY PARTNERSHIPS

The purpose of field studies is for scholars to engage with relevant places in their community. These experiences can support gaining social and cultural capital and offer opportunities to make unique and joyous learning experiences. Community members, local business owners, and community organizers can be incredibly supportive contributors to your scholars' education.

Before the school year begins, schools must allocate funding for field studies and make a plan to order or acquire materials for projects.



**OPERATIONS** 

PBL does not have to be costly, and many materials and resources can be readily available or found for free. Reach out to community partners for support; decide on cost-effective, local field studies ahead of time; and, make sure every project can be executed with available funding before planning.

Additionally, materials management requires collaboration across school operations, content leads, and teachers. It is important to be able to work closely with your leaders, grade team, and/or teaching partner to plan a routine for ordering, using, and setting up materials for each project, as well as organizing the PBL Museum and showcases.

# **IMPLEMENTATION**

## **Supports Offered**

<u>The Robertson Center</u> offers the following support to help you implement their PBL approach.

# Open-Source PBL Curriculum

Free



The Robertson Center website offers a variety of K–4 literacy-focused PBL units that are cross-disciplinary. Within these units, you'll find:

- Unit purpose and learning outcomes
- Essential and guiding questions
- A list of engaging and challenging texts
- Day-by-day lesson sequence with suggested timing
- Exemplar projects

Helpful links and resources

#### **Learn More**

# Virtual Community of Practice Sessions and Webinars

Free





The Robertson Center provides opportunities for educators to come together and discuss learning. The Robertson Center shares:

- Best practices and lessons learned from educators
- Real-time feedback on lesson plans
- Helpful targeted teaching approaches
- Support around adult mindsets and scholar engagement
- Live workshops and webinars
- And more!

#### Sign Up

## Direct Implementation & Supports

Free





The Robertson Center partners directly with schools to share Success Academy's best practices and learnings. This offering includes:

- Resources and implementation tools
- Professional development sessions
- Observations and feedback
- Coaching for teachers and leaders
- And more!

#### **Reach Out**

### Reach

49

Schools

20,000

**Scholars** 

100%

College Matriculation Rate

## **Impact**

Scholars become more engaged and confident learners through project-based learning at Success Academy.

Students tend to become self-assured, confident learners and apply those skills to other subjects and areas of their lives.

- Classrooms are more engaging and exciting as PBL work continues to go up on the wall.
- New ideas and topics introduced during PBL tend to serve as springboards for scholars' future exploration and learning.

All trends are reported directly by the Robertson Center at Success Academy.

### **Contact**

#### **Rachel Marino**

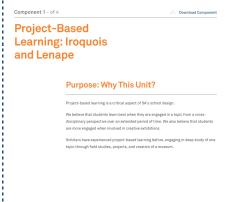
Program Specialist robertsoncenter@successacademies.org

# **RESOURCES**



#### "Farm to Table" Unit

This is a kindergarten unit that focuses on projects around agricultural processes and types of produce.



#### "Iroquois and Lenape" Unit

This is a grade 3 unit that focuses on projects that explore the lifestyle of Native peoples of the New York area.



#### Grade 2 Unit 7: PBL Birds

#### Unit Purpose

Think back to your most positive experience as a student—a time that was meaningful to you. Why did this leave a lasting impression? How did your teacher make this experience possible? What learning was embedded in this experience?

alk with your colleagues about your experiences and memories. It's likely you'll find some onsistent themes: working with peers, independence, choice, engagement, content-specifi parning, and applying learning in a real-world context. Project-based learning offers all of th nd more!

Watch <u>mis valob from PER, Works</u> to see project-based itearing in action. The teacher is knowledgeable and passionate about the topic. The children are making choices about what they do and how they do it, they're asking questions, reflecting, and interacting with peers and adults by discussing their ideas and feedback.

Our scholars learn the firth of becoming experts in a subject when they have extended fine it immerses themselves in a fascinating topic from a cross-disciplinary perspective—including through field studies, air projects, and classes in science, reading, writing, and or math. The culimitation of PEIL studies are museum presentations scholars can share with others—this allows scholars to demonstrate the learning and engagement they have achieves.

#### "Birds" Unit

This is a grade 2 unit that focuses on projects and field studies around different types of birds.

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Grade 3 Unit 8: PBL Immigration and Ellis Islands

Think back to your most positive experience as a student — a time that was meaningfu. Why did this leave a lasting impression? How did your teacher make this experience power with the experience power in the experience power in the experience?

Talk with your colleagues about your experiences and memories. It's likely you'll find some consistent themes: working with peers, independence, choice, engagement, content-specific learning, and applying learning in a real-world context. Project-based learning offers all of this and more!

Watch this video from PBLWorks to see project-based learning in action. The teacher is knowledgeable and passionate about the topic. The children are making choices about what they do and how they do it, they're asking questions, reflecting, and interacting with peers and adults by discussing their ideas and feedback.

Project Based Learning (PBL) is a critical aspect of Success Academy's school design. Our scholars learn the thirl of becoming experts in a subject when they have extended time to immerse themselves in a fascinating topic from a cross-clistopiancy perspective—including through field studies, art projects, and classes in science, reading, writing, and/or math. The culimation of PBL studies are museum presentations scholars can share with others; this allows scholars to demonstrate the learning and engagement they have achieves they have achieves the same of the scholars of the scholar

### "Immigration" Unit

This is a grade 3 unit that focuses on projects and activities around immigration.

#### Immigration and Ellis Island Expert Book

- Disactions:

  One the next how weeks, you will:

  Example: "From Ellis Island to Orchard Street" is broad, allowing you to share ample information. "The Medical Exam" is wery specific and better off being a chapter within your book.

  Constitution of the properties of t

### **Expert Book Assignment** Overview

This is an overview of an activity from the grade 3 "Immigration" unit where scholars build an expert book on the reasons people migrate.

# ACADEMY

Grade 1 Unit 7: PBL Arctic

Think back to your most positive experience as a student—a time that was meaningful to you Why did this leave a lasting impression? How did your teacher make this experience possible What learning was embedded in this experience?

Watch this vision from PBLWorks to see project-based learning in action. The teacher is knowledgeable and passionate about the topic. The children are making choices about what they do and how they do it. they're asking questions, reflecting, and interacting with peers an adults by discussing their ideas and feedback.

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### "Arctic" Unit

This is a grade 1 unit that focuses on projects where scholars explore the Arctic ecosystem.



#### Hibernation Experiment

Some animals such as brown bears, black bears, and the arctic ground squirrel hibernate during the Arctic's long harsh winter when food is scarce. This means that they find shelter and go into a deep, deep sleep for months at a time. During this time animal's body is using very little energy because they jay motionless. They are using such little energy that they require no additional food, only the fat stored on their body. Complete the experiment below to see how an animal at rest will use the stored fat at a slower rate than an animal in motion!

- ou will need:

  2 small jars (with lids) filled with water-baby food jars work best

  1 pat of butter in each jar

teps:

1. Label the jars as "hibernating animal" and "awake animal". Tell the children that we are going to pretend that it is winter. These jars are two arctic animals. One hibernates. The other worth go to steep turns up stored fall in our body. It makes us little and hungry as we burn up the fall. The best inside the jar represents the stored fat the animals have inside their bodies. This stored fat gives them the energy that they need to live.

### <u>Hibernation Experiment</u> Overview

This is an overview of an activity from the grade 1 "Arctic" unit where scholars conduct experiments to learn about hibernation.

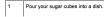


#### Building an Inuit Igloo

The Arctic is one of the coldest environments on Earth. Winters are long with few hours of dayight. Before they lived in modern homes, the Inutl had to adapt to this extrea climate. The Inutl people built stury's phelares to protect themselves from the harsh winds and bitter cold. The Inutl word for home is "tigloo." During the summer, the igloos were made from a wooden frame with animal skins and whale bones. During the winter, however, igloos were made from blocks of ice!

Scholars will work in small groups to create their igloos. If necessary, you could also create one class igloo that all scholars add to over the course of a couple days. If you choose to go the whole class, or two large groups, you can use a hot glue gun in lieu of white glue and have a teacher apply the glue.

- Sugar Cubes (one box = one igloo)
  Cardboard
- White Glue (or hot glue if teacher assisted)
   White Paint





### Building an Inuit Igloo Overview

This is an overview of an activity from the grade 1 "Arctic" unit where scholars build an Inuit igloo.



#### Directions for ABC Arctic Book THIS IS A GROUP PROJECT. EACH CHILD DOES ONE LETT

- aterials:

  examples of ABC Books

  photos of the Arctic and arctic animals

  chart paper

  marker to write words A–Z down

  white sketch paper

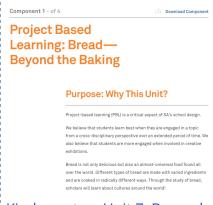
- Small pieces of colored construction paper
  Large piece of construction paper for base
  Scissors
  Glue

- WATERCOLORS

- Penciis to sketch
   Watercolor pallets
   Watercolor paper
   WATERCOLOR PENCILS
   Penciis to sketch
   Watercolor pencils
   Watercolor paper approx 8X10

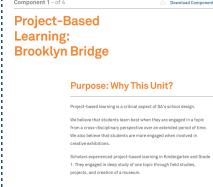
### ABC Arctic Book Overview

This is an overview of an activity where scholars create a glossary of related terms across the entire grade 1 "Arctic" unit.



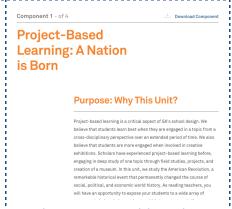
## Kindergarten, Unit 7: Beyond the Baking

This is a kindergarten unit that includes field studies at bakeries and supermarkets to learn about the process of baking bread.



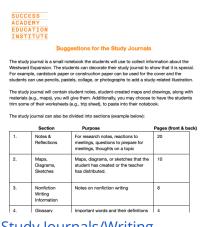
# Grade 2, Unit 3 Field Studies: Brooklyn Bridge

This is a grade 2 unit that includes field studies at nearby bridges to learn about the modern use of these structures.



# Grade 4, Unit 3 Field Studies: The American Revolution

This is a grade 4 unit that includes field studies at local historical sites and locations to learn about the birth of the nation.



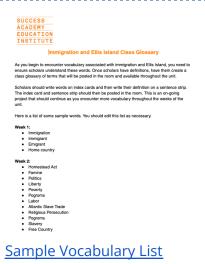
### Study Journals/Writing Suggestions

This is an assignment overview with suggestions on how to organize scholars' writing journals.



### **Thinking Chart Template**

This is a template for the grade 3 "Immigration" unit that asks scholars to reflect on what they know and what they want to know.



This is a possible vocabulary list for the grade 3 "Immigration" unit.