

# ADVANCED LEARNING LABS

Collaboration between NC Department of Public Instruction and AIG Teachers across the state

TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES  
10-12

## Identity



### ENGLISH LANGUAGE ARTS

What do you identify as the “American Dream?” Using images from the Smithsonian Learning Lab, choose 3 pictures that you think symbolize the American Dream: <https://s.si.edu/2D24sf2>

By describing and analyzing each image, evaluate the American Dream. Consider the questions below in your evaluation:

- How do the images reflect the idea of the American Dream?
- How has the dream changed over time and what does it mean today?
- How have aspects of the American Dream remained unchanged?

Select an image that symbolizes your American Dream. Explain why you selected this image. How does this image relate to your identity?



### SOCIAL STUDIES

In a democracy, citizens can voice their opinions through elections. The Smithsonian’s video series follows 10 teens who have stood up for what they believe and have made a difference: <https://s.si.edu/2Wka1fh>

What is something you feel strongly about in today’s society? If you were invited to Congress to give a speech about the topic, what would you say?

- How would you convince Congress to agree with you?
- What actions would you propose to your audience to put your words into action?
- What are two or three takeaways you would like to leave with your audience?

Write your speech and present it to a friend or relative, or a local government official, or Congress!

Tips on how to write an effective speech: <https://writingcenter.unc.edu/tips-and-tools/speeches/>



### SCIENCE

Cloning is a technique used in molecular biology to make identical copies of DNA. Your DNA contains all the unique information to create who you are. There is no one exactly like you. Many conversations have been held about the pros and cons of cloning. Those against it cite the invasion of human identity, while supporters argue the possibilities of genetic research and advances in human development.

How do you feel about cloning? If it could be used to save you or the life of someone you love, would you allow it? Would you feel as if your identity was taken? What about ethical issues?

Write an argumentative essay about your stance on cloning. Explain your reasons and any scientific data to support your claim.

Read more about cloning: <https://www.genome.gov/about-genomics/fact-sheets/Cloning-Fact-Sheet>



### MINDFULNESS

Self-awareness is vital in understanding one’s identity. Dr. Thomas Armstrong said, “*One of the hallmarks of adolescence is the development of a deeper sense of self-consciousness.*”

Take five minutes and reflect. You’re at an important stage in your life. Outside influences, like social media and friends, contribute to how you see yourself. Instead of focusing on how other people see you, take the initiative to “see yourself.”

Watch the TED Ed video: <https://ed.ted.com/lessons/who-am-i-a-philosophical-inquiry-amy-adkins#watch>

Can you relate to the ship analogy? How does this make you more aware of who you are?



## LOGIC PUZZLE

Identity Riddles:

Once I'm 24. Twice I'm 20. Three times I'm inappropriate. What am I?

I cause involuntary movements in your vehicle. What am I?

You throw away my outside, you cook my inside. Then you eat my outside and you throw away my inside. What am I?

My first is in riddle, but not in little.

My second is in think, but not in brink.

My third is in thyme, but not in time.

My fourth is in mother, but not in brother.

My last is in time, but not climb.

What am I?



## FIELD STUDIES

Forensic science is the use of scientific means to analyze physical crime evidence. One tool in the identification process is fingerprinting. No two prints are alike, not even for identical twins. Each print consists of arches, loops and whorls that are analyzed using a lope magnifier, super glue chamber, or a light source.

Copy your own unique fingerprint using a pencil, tape, and a sheet of paper, using these instructions: <https://youtu.be/w7UYHrPas3c>. Identify any loops, arches, or whorls.

Think you have what it takes to become a fingerprint examiner? Test your eye with the fingerprint quiz: <https://www.nist.gov/news-events/news/2017/05/do-you-have-what-it-takes-be-forensic-fingerprint-examiner>

Research other related professions that use fingerprinting technology.



## RESEARCH EXPLORATIONS

Smartphones - Do You Really Want Them to Be Part of Your Identity?

Many people consider their smartphone as part of their identity, but have you ever wondered how sustainable your smartphone is?

Use the interactive link below to take a detailed look at positive and negative impacts your smartphone has made on people and the planet: <https://bit.ly/30wM3yl>

Make your own smartphone pros and cons list. Be sure to include social and environmental effects. Use this list to prepare and record a Ted Talk or a Public Service Announcement about the sustainability issues surrounding the development of this technology. Be sure to include how educating yourself on the environmental effects of smartphone production can change the way you identify with the world of technology.



## MATH

Equations and Identities

As stated by Brilliant.org, "An identity is an equality that holds true regardless of the values chosen for its variables. They are used in simplifying or rearranging algebra expressions. By definition, the two sides of an identity are interchangeable, so we can replace one with the other at any time."

Watch the following video about polynomial identities: <https://study.com/academy/lesson/what-are-polynomial-identities.html>

Create your own polynomial identity equations. Write down an example of an equation that has:

- (a) One solution
- (b) Two solutions
- (c) An infinite number of solutions
- (d) No solutions



North Carolina Department of  
**PUBLIC INSTRUCTION**



# ADVANCED LEARNING LABS

Collaboration between NC Department of Public Instruction and AIG Teachers across the state  
TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

---

GRADES

**K-12**

## Identity Reference Guide

### **2-3 and 4-5 Logic Puzzles:**

Tower of Hanoi puzzles

[https://www.mathplayground.com/logic\\_tower\\_of\\_hanoi.html](https://www.mathplayground.com/logic_tower_of_hanoi.html)

### **6-7 Logic Puzzle:**

Solution available during Ted Talk:

[https://www.ted.com/talks/alex\\_gendler\\_can\\_you\\_solve\\_the\\_three\\_gods\\_riddle/transcript?language=en#t-38386](https://www.ted.com/talks/alex_gendler_can_you_solve_the_three_gods_riddle/transcript?language=en#t-38386)

### **10-12 Logic Puzzle:**

Solution: The letter X

Solution: A tow truck

Solution: Corn

Solution: A rhyme

# ADVANCED LEARNING LABS

Collaboration between NC Department of Public Instruction and AIG Teachers across the state  
TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES  
**K-12**

## Identity NC Standards Alignment

Grade Span	English/ Language Arts	Social Studies	Science	Math
<b>K-1</b>	RL.1.3 RL.1.7	K.C.1.1	K.P.2.1	NC.1.OA.6 NC.2.OA.2
<b>2-3</b>	RL.3.3	3.G.1.5 3.G.1.2	2.P.2.1	NC.2.G.1
<b>4-5</b>	RL.5.3	4.H.2.2 4.H.1.6	4.P.2.3	NC.4.G.2
<b>6-7</b>	W.6.3	6.C.1.1	7.L.2.2	NC.6.EE.6 NC.7.EE.3
<b>8-9</b>	W.7.2	8.H.1.3	8.L.2.1	NC.M2.A-REI.4
<b>10-12</b>	RI.11-12.7	FPC&G.4	BIO.3.3.3	NC.M3.N-CN.9