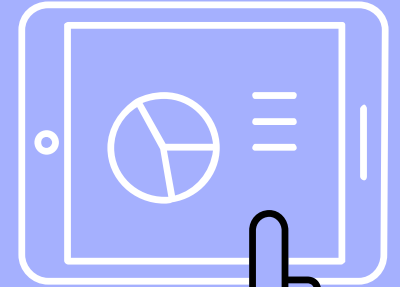
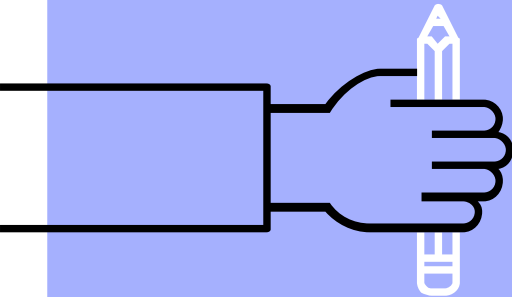
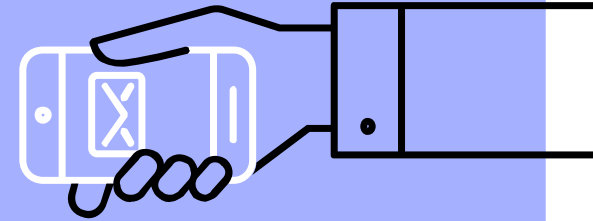
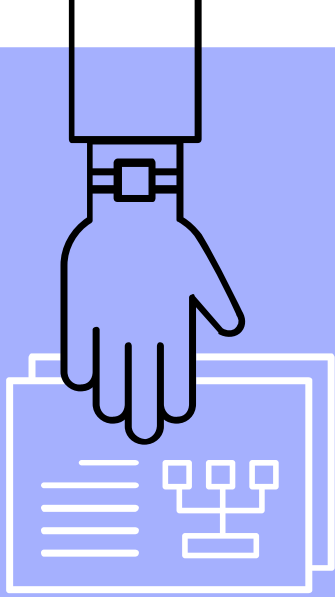


Abstraction And Creating and Designing



Students apply key components or ideas and use that information to solve a new problem

Abstraction:

Example: Science

Key Components and Ideas:

Energy Transfer from a Catapult

New Problem:

Apply those principles to a roller coaster or any other system dealing with energy transfer.

Example: Science

Key Components and Ideas:

Systems of the body and their functions.

New Problem:

Symptoms: decreased urine output, fluid retention, swelling in legs, ankles and feet

What organ is malfunctioning and what treatment can be provided to this patient?

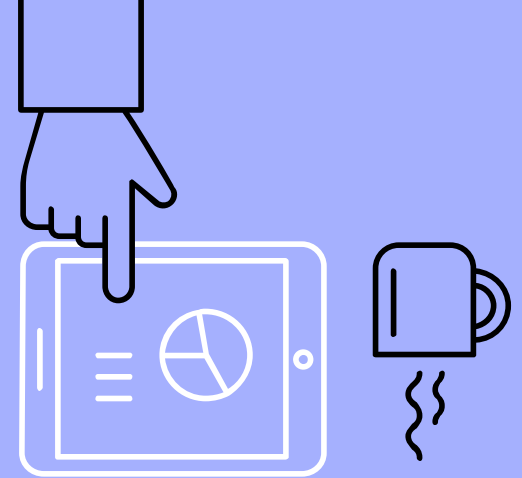
Example: Math

Key Components and Ideas:

Students learn a variety of strategies to solve a problem.

New Problem:

Students solve an unknown problem using one of these strategies.



Abstraction:

Students apply key components or ideas and use that information to solve a new problem

Example: Math

Key Components and Ideas:

10 more or 10 less word problems

New Problem:

Word problems that include numbers that are 100 or 1000 more or less

Example: Social Studies

Key Components and Ideas:

Identify the 7 characteristics of a civilization. Explore a variety of sources about different ancient civilizations.

New Problem:

Explain why an unfamiliar organization is or is not a civilization

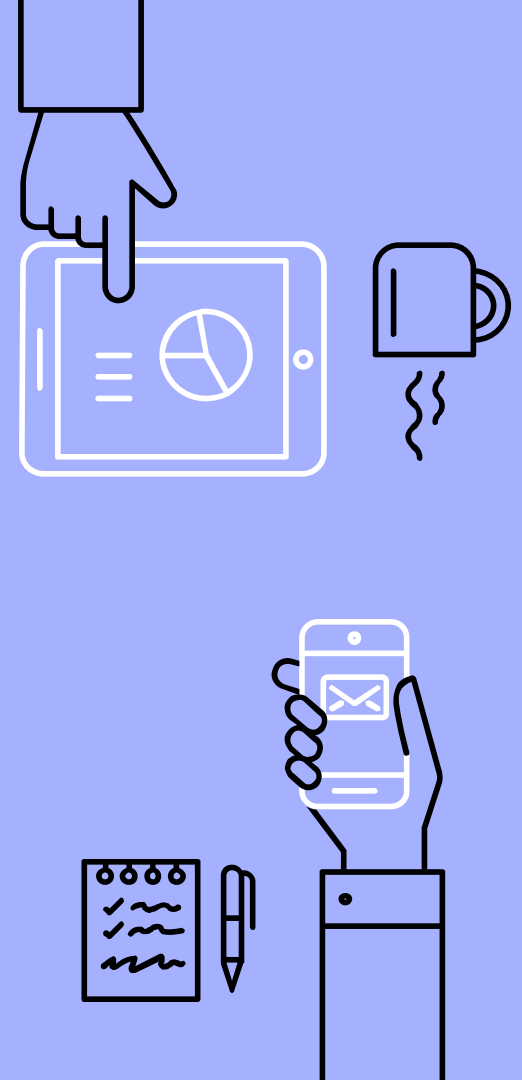
Example: Social Studies

Key Components and Ideas :

Students explore different groups of settlers in early Louisiana .

New Problem:

Students identify a some local cultural elements brought by these early settlers.



Abstraction:

Students apply key components or ideas and use that information to solve a new problem

Example: ELA

Key Components and Ideas:

Determine criteria for an argumentative essay by looking at strong models.

New Problem:

Students write an argumentative essay based on the criteria.

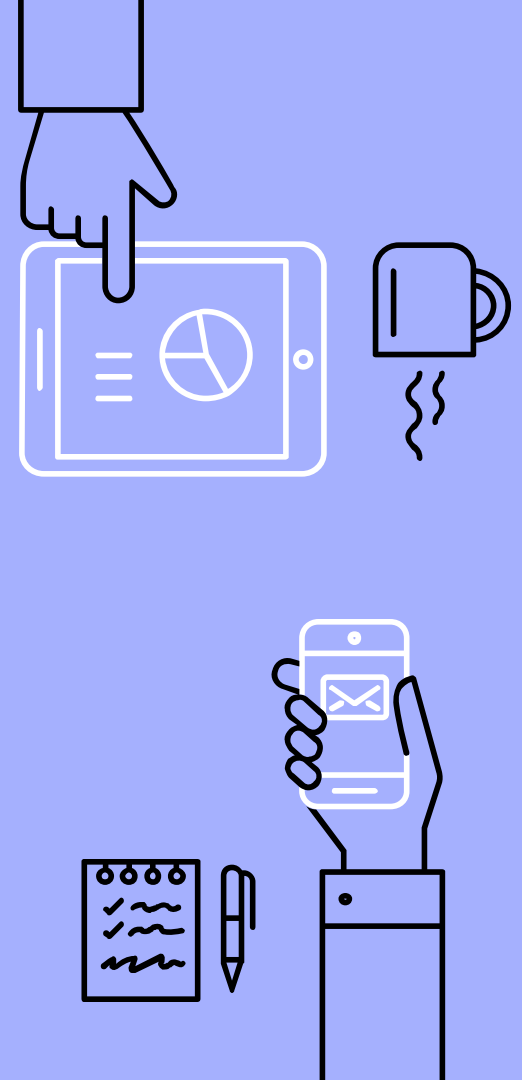
Example: ELA

Key Components and Ideas:

Identify traits of a character within a text.

New Problem:

Discuss and write about how this character would react in a new setting/text.



Students produce (not a reproduction) something that is externally evaluated or reviewed.

Creating and Designing:

- Students should self-question during evaluation to internalize and improve their own product based on criteria.

Example: ELA

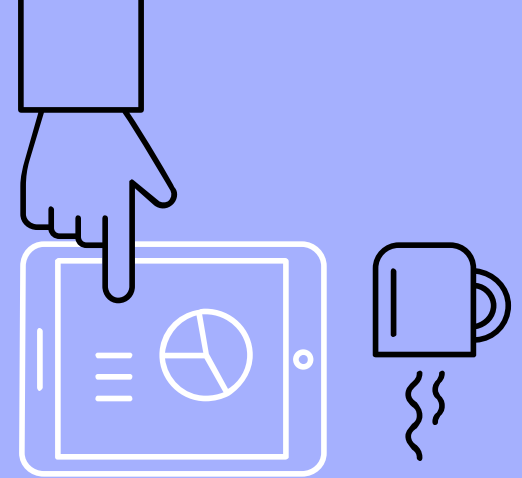
Students write a student-led fable.

Peers evaluate the fable based a specific criteria.

Example: Social Studies

Students design a shelter that would be used by the indigenous people of a particular area.

Peers evaluate the house based on a set of criteria.



Students produce (not a reproduction) something that is externally evaluated or reviewed.

Creating and Designing:

- Students should self-question during evaluation to internalize and improve their own product based on criteria.

Example: Science

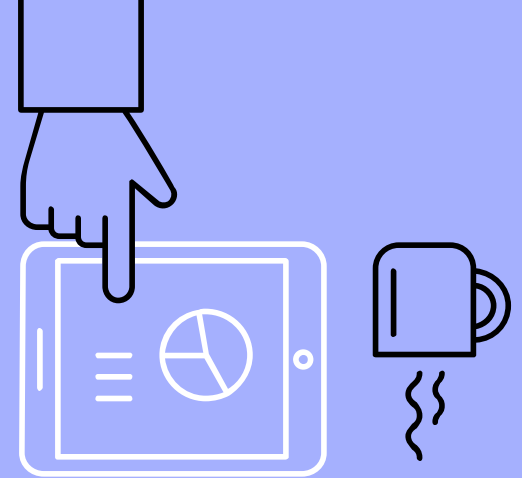
Students design an experiment based on a set criteria.

Peers conduct the experiment and give feedback.

Example: Math

Students create assessment items or word problem based on a set criteria,

Peers complete the assessment or word problem.



Non-examples

**Abstraction
Non-Example:
Math
Key Components
and Ideas:**

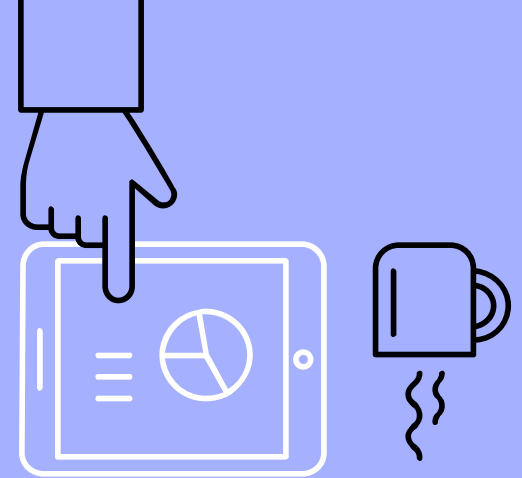
Triangles-sorting
several examples
into 2 groups.
(triangles and
non-triangles)

**Creating and
Designing
Non-Example:**

Answering a
question based on
a text would be
drawing a
conclusion

**Creating and
Designing
Non-Example:**

Students create a
product and peers
give feedback with
no set criteria.



Next Steps:

- Think about the lesson that you taught or planned that included Abstraction and Creating and Designing.
 - How did your lesson align to these examples?
- Redelivery to PLCs
 - Discuss types of Problem Solving within student work samples
 - Discussions led by ILT members
- No meeting on October 30th

