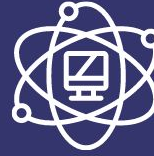


# Making Connections



Earth  
Systems



Computer  
Science

Kindergarten

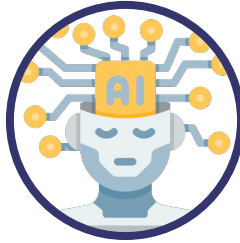


<b>Organizing Idea</b>	<b>Computer Science: Problem solving and scientific inquiry are developed through the knowledgeable application of creativity, design, and computational thinking.</b>		
<b>Guiding Question</b>	<b>How can instructions be used?</b>		
<b>Learning Outcome</b>	<b>Children interpret instructions in various environments.</b>		
<b>Knowledge</b>	<b>Understanding</b>	<b>Skills &amp; Procedures</b>	
<p>Instructions are directions that can be followed.</p> <p>Instructions may be experienced in many different contexts, such as</p> <ul style="list-style-type: none"> <li>• home</li> <li>• learning environments</li> <li>• games</li> <li>• experiences in nature</li> </ul> <p>Instructions can be given in many ways and presented through</p> <ul style="list-style-type: none"> <li>• speaking</li> <li>• pictures</li> <li>• gestures</li> <li>• traditional teachings</li> </ul>	<p>Following instructions can help people be safe, complete a task, and know what to do.</p>	<p>Recognize when actions do not correspond to instructions.</p> <p>Match an action to the corresponding instruction.</p> <p>Engage in activities that involve following instructions in various contexts.</p> <p>Identify instructions that help keep people safe in various contexts.</p> <p>Engage in activities that involve following instructions presented in various ways.</p>	

<b>Organizing Idea</b>	<b>Computer Science: Problem solving and scientific inquiry are developed through the knowledgeable application of creativity, design, and computational thinking.</b>		
<b>Guiding Question</b>	<b>How can instructions be used?</b>		
<b>Learning Outcome</b>	<b>Children interpret instructions in various environments.</b>		
<b>Knowledge</b>	<b>Understanding</b>	<b>Skills &amp; Procedures</b>	
Instructions have one or more steps.	The order in which instructions are followed can affect the outcome.	<p>Follow a sequence of two steps related to a learning experience.</p> <p>Identify differences in outcomes when the order of two steps is changed.</p> <p>Communicate a sequence of two steps for a given purpose.</p>	

# Computational Thinking

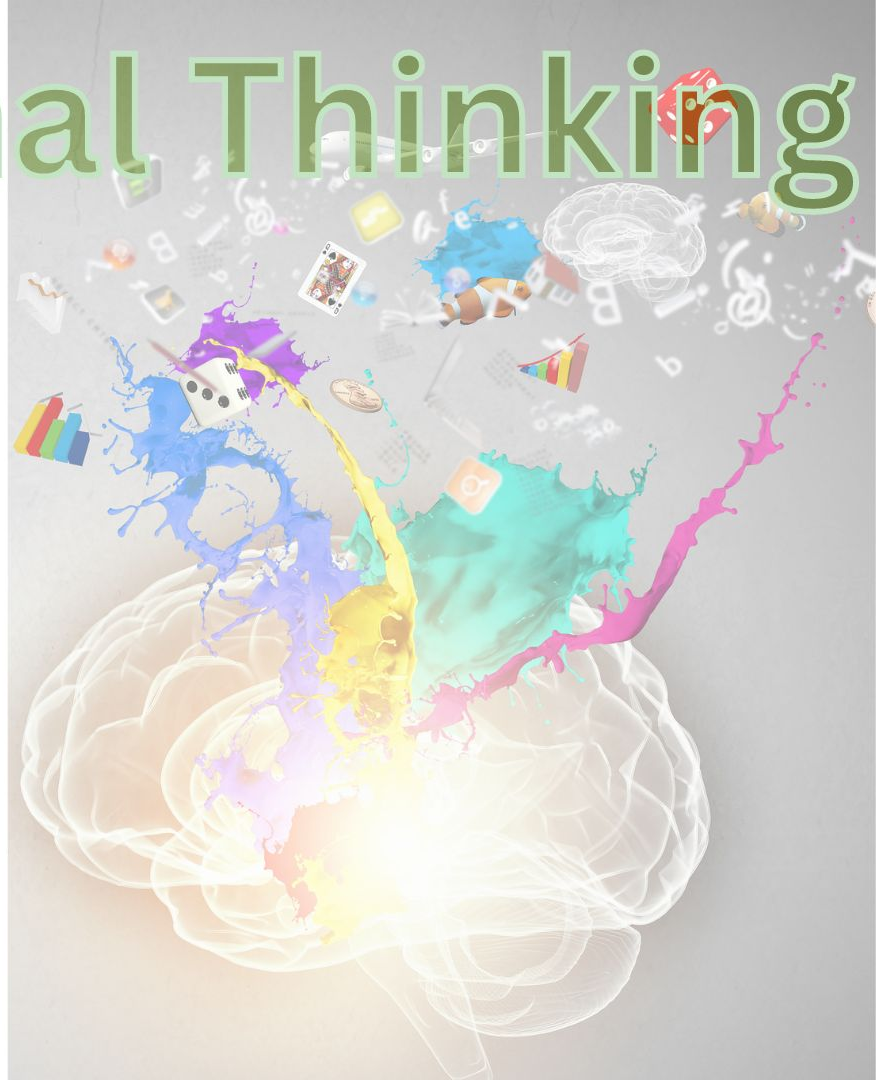
Decomposition



Pattern Recognition

Pattern Abstraction

Algorithm Design



# Design Thinking Process



*Learn About  
Your Audience*



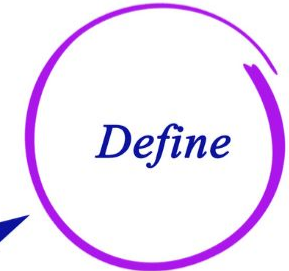
*Brainstorm and  
Come up with  
Creative Solutions*



*Test Your Ideas*



*Empathize*

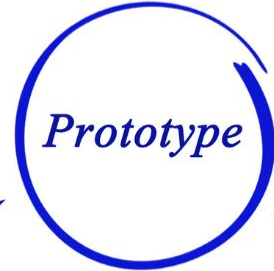


*Define*

*Construct Point  
of View Based  
on User Needs*

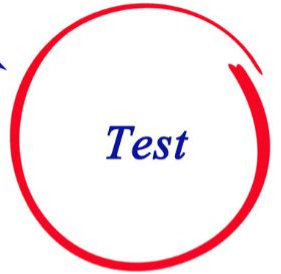


*Ideate*

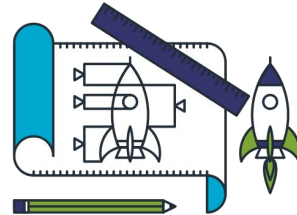


*Prototype*

*Build  
Representation  
of Your Ideas*



*Test*



# Creativity

Finding different ways to reach the same outcome.

Problem solving to overcome obstacles to achieve a desired outcome.



<b>Organizing Idea</b>	<b>Earth Systems: Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.</b>
<b>Guiding Question</b>	<b>How can environments be explored?</b>
<b>Learning Outcome</b>	<b>Children examine and describe surrounding environments.</b>

**Skills & Procedures**

- Use the senses to make observations about environments.**
- Ask questions about surrounding environments.**
- Demonstrate respect while interacting with environments.**
- Represent a local environment in nature.**



How do we ask the right questions to get the answers we are looking for?



<b>Organizing Idea</b>	<b>Earth Systems: Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.</b>
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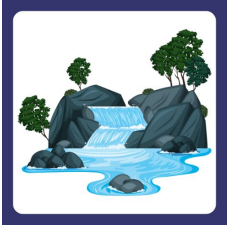
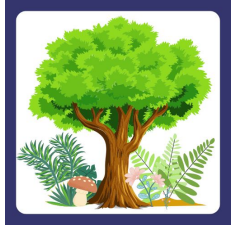
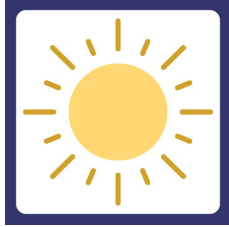
**Skills & Procedures**

**Identify natural and constructed objects in surrounding environments.**

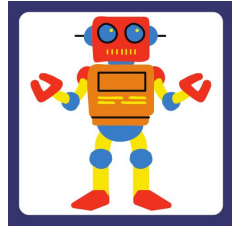
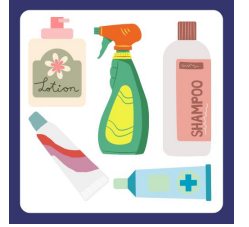
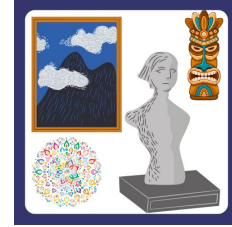
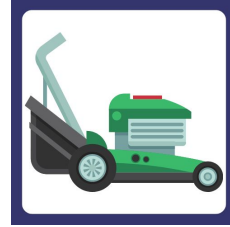
Represent objects found in nature and those constructed by humans.

**We want to organize these by objects that are natural and objects that are man made.**

# NATURAL OBJECTS

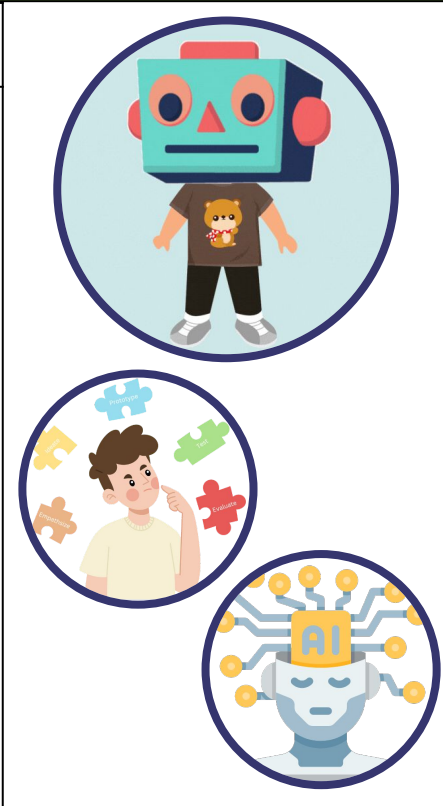


# MAN MADE OBJECTS



<b>Organizing Idea</b>	<b>Earth Systems: Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.</b>
<b>Guiding Question</b>	<b>How can environments be explored?</b>
<b>Learning Outcome</b>	<b>Children examine and describe surrounding environments.</b>

<b>Skills &amp; Procedures</b>
<b>Observe a variety of local environments over time.</b>
<b>Record observations of changes in environments.</b>
<b>Discuss the importance of protecting and respecting environments.</b>
<b>Identify ways to protect and respect environments.</b>





Engage in activities that involve following instructions in various contexts.






Engage in activities that involve following instructions presented in various ways.




Follow a sequence of two steps related to a learning experience.

Communicate a sequence of two steps for a given purpose.

<b>Organizing Idea</b>	<b>Earth Systems:</b> Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.
<b>Guiding Question</b>	How can environments be explored?
<b>Learning Outcome</b>	Children examine and describe surrounding environments.

**Skills & Procedures**

**Identify physical locations, objects, and experiences in nature that can lead to personal feelings of connection.**

**Reflect on what is personally considered to be beautiful and appreciated in nature.**

**Discuss connections First Nations, Métis, or Inuit have with nature.**



# EMPATHY

Talking and thinking about feelings helps students develop empathy.

