00 RESPONSE

USING THE PROBLEM SOLVING PROCESS

Warm Up

Prompt

Think of the silliest problem the problem-solving process could help with. Be prepared to say how each step of the process could apply.

Response

_____

_____

_____

_____

_____

_____

Wrap Up

Prompt

The problem-solving process is particularly helpful when we encounter poorly defined problems. We saw today that without a well-defined problem the rest of the problem-solving process is difficult to follow. What are some questions or strategies we can use to help us better understand and define problems before we try to solve them?

Response

1. _____

2. _____

3. _____

Question Of The Day

How can we apply the problem solving process to many different kinds of problems?

Response

_____

_____

_____

"EX LABORE, EXCELLENTIA VENIT"
FROM EFFORT, COMES EXCELLENCE

01 ACTIVITY GUIDE

Using the Problem Solving Process

Word Search

Overview
Working with a team, find the following words in the grid. They may be horizontal, vertical, or diagonal in any direction.
DEFINE, **PREPARE**, **TRY**, **REFLECT**, **PROBLEM**, **SOLVE**, **COMPUTER**, **SCIENCE**

Objective
Find and circle all 8 words as quickly as you can!

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E S Q H J H R C F A X M G M U E B L N I
S R K E R E T U P M O C E C M Z T Y J C
D X A P N X Q L Y V K L S X X N C E H N
J M X P K W W O J Q B B O Q M H E A H T
B I U O E Y H K M O A R L F R D L P H A
N J H T Y R A E R C F L V M S C F A J M
T I R Y Q W P P H D X Q E Q U N E R G S
H Y R I M I X D Z K B M N G O J R B K U
P U B U E U J E G D T F B D T I M V V P
H V W S K F D G K V D M S O X Y O R S F
S C I E N C E W P Q T E O R I A S Q M U
H R G D Y V N H I J D C F G V H E M Z M
U O H H N A G X O Q K K B I G M T W O L
O P E I O Q G B A R V H P N N A Z E X V
Y I S W N R N U U W G H X H A E B O P N
L X D J X R P V Y J H U H X D Y F O I D
F U D J X V U K F C V D Q B P D Z I B D
F B R D S I W P K F K V T R D R G Y C R
Y E T Y O D M X H L L V P T J V I J C D
H E X K R O I P B W E T O Y X I B W V O
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Once You're Done
Head to the last page of the activity guide and fill in the row there for the "Word Search" in the table.

"Ex labore, excellentia venit"
From Effort, Comes Excellence

02 BIRTHDAY GUESTS

USING THE PROBLEM SOLVING PROCESS

Birthday Guests

Overview

A big group of 15 guests is getting together at a restaurant for a birthday. The restaurant has 3 tables that can each seat only 5 people. Below you can find some information about the people who are attending the party.

Aysha, Ben, Carla, Damien, Eric, Fan, Genaro, Hannah, Isaias, Jessica, Kyla, Laila, Max, Nazek, Owen

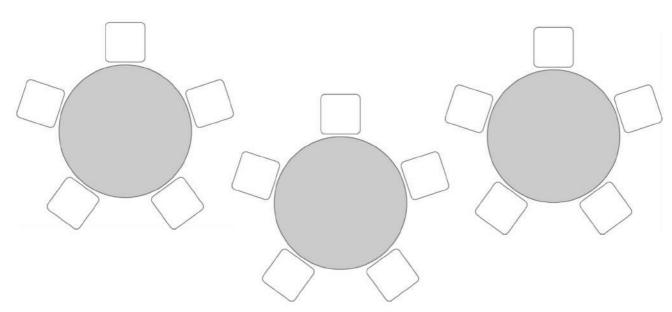| Close Friends (Try to put them together)	In a Fight (Try to keep them apart)
Aysha and Damien	Aysha and Genaro
Max and Isaias	Ben and Hannah
Nazek and Laila	Fan and Max
Owen and Genaro	Damien and Laila
Ben and Jessica	Isaias and Owen
Genaro and Eric	Kyla and Jessica

Objective

Find the best possible arrangement of guests at the party. Draw your solution in the space below. To help you can cross out the letters of the names you've assigned in the row below.

A   B   C   D   E   F   G   H   I   J   K   L   M   N   O

Once You're Done

Head to the last page of the activity guide and fill in the row there for the "Birthday Guests" in the table.

03 REDESIGN CLASSROOM

USING THE PROBLEM SOLVING PROCESS

Redesign Your Classroom

Overview
You and your friends will be redesigning your classroom. You only have one school day to make it happen, but otherwise how you plan it is up to you. Plan the best looking classroom that you can!

Develop Goals
Talk with your group for a few minutes. What are the most important things about the classroom? Can everyone see the teacher? How will you move everything? Write down the goals you'll use to decide what makes a good plan.

Goals	How My Plan Helps Reach this Goal
Everyone can still see the teacher	
Everyone should be able to _____.	

Make a Layout
Every member of your group should separately start designing a layout. You should select what should go where and make sure it all fits in the room. For each goal your group chose, list how your layout helps to reach it in the right column. In the space below draw or describe your redesigned classroom.

New classroom design:

Share Your Layout and Get Feedback

Share the layout you developed with your teammates and explain why you think it is the best possible layout given the goals you chose. Afterwards, record their feedback and reactions to your design in the space below. Is there anything that needs to change? How could your layout improve?

Improve and Finalize

Using the feedback from your teammates update your layout. In the space below, write down the new design that you and your group agreed on.

Redesign

Once You're Done

Head to the last page of the activity guide and fill in the row there for the "Redesign Your Classroom" in the table.

04 NOTES

USING THE PROBLEM SOLVING PROCESS

Problem Solving Process Notes

Reflecting on Using the Process

How did you use each step of the problem solving process to solve this problem? Give examples of what each step looked like as you were solving that problem.

	Define	Prepare	Try	Reflect
Word Search				
Birthday Guests				
Redesign Your Classroom				

The Purpose of Each Step

For each step in the problem solving process, write one sentence explaining its purpose. Why is it included in the problem solving process?

Define:
Prepare:
Try:
Reflect:

Defining Problems with Questions

Before starting to solve a problem it's important that you have defined it well. What questions or strategies can you use to better define or understand a problem? Record them in the space below.