

Name(s) _____ Date _____

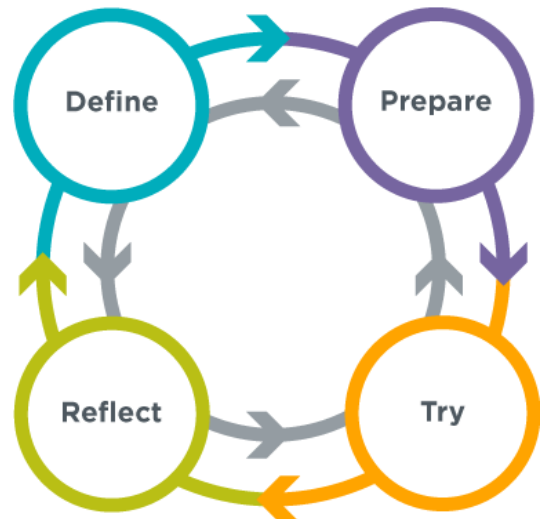
Activity Guide - The Problem Solving Process



The Problem Solving Process

Having a strategy for approaching problems can help you develop new insights and come up with new and better solutions. This process is generally useful for solving all kinds of problems.

- **Define**
 - What problem are you trying to solve?
 - What are your constraints?
 - What does success look like?
- **Prepare**
 - Brainstorm / research possible solutions
 - Compare pros and cons
 - Make a plan
- **Try**
 - Put your plan into action
- **Reflect**
 - How do your results compare to the goals you set while defining the problem?
 - What can you learn from this or do better next time?
 - What new problems have you discovered?



What it Looks Like

You're going to list the strategies and processes you and your classmates already use for each step in this process. Fill out the tables below for each of the three problems.

Aluminum Boats

For each step in the Problem Solving Process list the parts of this activity you believe fall within that step

- **Define**

Know about the aluminum foil and that the boat has to hold pennies.

- **Prepare**

Make the plan for our boat and describe how we will make it.

- **Try**

Make the boat, try to put as many pennies in as possible.

- **Reflect**

Think about what went right and wrong and how it could be better.

What strategies did you use in solving this problem that could help you solve other problems?

I got some ideas from other groups, and I talked about what would work with my friends.

A Problem You Are Good at Solving

You should have brainstormed a type of problem that you're good at solving. Write down the steps of your process that you believe fall into each step of the Problem Solving Process

Type of Problem: My friends have a fight

- Define

Figure out why they are mad at each other.

- Prepare

Think of what to say that they will not be mad.

- Try

Talk to them.

- Reflect

Make sure they are feeling better.

What strategies do you use in solving this problem that could help you solve other problems?

Find out what went wrong, like if someone took something the wrong way.

A Problem You and a Classmate Want to Get Better at Solving

Find a classmate and talk to figure out a type of problem you both could get better at solving. Fill out the questions below with strategies or steps you would want to use to try to solve this problem using the problem solving process.

Type of Problem: Late to school

- Define

I'm ALWAYS late to school because my brother is never ready to go.

- Prepare

Make a plan with my brother and decide what time to get out of bed, brush teeth, eat breakfast, and get out the door.

- Try

Keep track of the time in the mornings and tell my brother when he is behind schedule (because he probably will be).

- Reflect

Look back at what happened last week. Set new goals as his timing gets better.

What strategies could you use in solving this problem that could help you solve other problems?

Making a plan, and then changing it if it doesn't work. Also, making sure we keep to the plan.