Creative Problem-Solving Curriculum

Lesson 3

Applying Design Thinking to Your Own Life

Lesson Overview:
Students will continue exploring Design Thinking as an approach to creative problems solving in their own lives. They will complete the following steps: 1) screening the Applying Design Thinking to Your Life video and considering how this approach to creative problem solving might be useful 2) trying out Design Thinking to solve a problem or improve an aspect of their own life.

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Creative Problem Solving
Lesson 3 – Applying Design Thinking to Your Life

Lesson Overview:
During this lesson, you will guide students to consider and try Design Thinking as an approach to creative problem solving for questions, challenges and problems in their own lives.

Time Frame:
70-85 minutes + 1 week for prototyping on student time
Optional homework for brainstorming
Optional class period for project share out at the end

Core Concepts:
- Design Thinking can be used to design lifestyle solutions to a variety of problems, challenges, and questions that come up in the ways that we live our lives.
- The Design Thinking approach to designing our own lives has five steps: *assessing where we are*, *define* the problem, *ideation* (brainstorming), *prototyping*, and *testing*.

Lesson Objectives:
In this lesson students will:
- Review Design Thinking as an approach to creative problem solving.
- Consider how Design Thinking might be utilized to solve problems or answer questions in their own lives so that they can work towards and live satisfying lives.
- Practice using design thinking to identify areas of their lives that they would like to improve or address and begin testing ideas for change.

Materials Needed:
- Lesson 3 Video: Design Thinking: How to Solve Any Issue
- Optional Video: 4 Proven Techniques for Solving Any Problem
- Lesson 3 Worksheet photocopies (1 packet per student)

Part 1: Consider Design Thinking as a Tool for Crafting Our Lives
Step 1: Introduce the Lesson
(1 minute)

Explain to students that they will be learning how to use Design Thinking (from the previous lesson) to solve problems or make decisions in their own lives. During the lessons, they will practice the steps of design thinking within the context of creating a satisfying life.

Step 2: Activate Prior Knowledge
(5-10 minutes)

Ask students to review Design Thinking with a partner. Invite students to jot down the steps of the process. Ask students to discuss how they might adjust the steps if they were designing a solution for their own problems, rather than designing for someone else.

Step 3: Present the Design Thinking: How to Solve Any Issue video
(15-20 minutes)

Show the video and then facilitate a discussion after the viewing. You may wish to solicit questions and comments from the students first. You can use these suggested discussion points to deepen the conversation and student thinking:

- What is your initial reaction to the idea of using Design Thinking to craft your own life options and choices?
- What are some problems, challenges, or questions that you have for your life that could be addressed with Design Thinking?
- What kind of mental shift might you need to make in order to put yourself into the role of user *and* designer?
- What questions do you have about applying Design Thinking to your own life?

<u>Part 2: Students Apply Design Thinking to Their Own Lives</u>
Intro: Remind them to have fun with it.
(5 minutes)

Distribute the lesson worksheet packet and explain to students that now it's their turn to test out the Design Thinking process. Encourage them not to worry about doing each of the steps perfectly. They should already know that Design Thinking is iterative, so they will have the opportunity to try different prototypes. The whole point is for Design Thinking to help them make their lives better, so the process should be a net positive experience for them. Hopefully it will be fun and/or interesting!

Step 1: Assess Where You Are
(10 minutes)

Students should work individually for this step. As they complete this section of the lesson worksheet, encourage them to figure out where they are now in their lives so that they can later look for areas that they would like to improve or identify questions about their next steps or the more distant future.

For students who finish earlier than others, encourage them to choose one or more of the four areas (health, school, play, or relationships) to dig into a little deeper and write even more detailed notes to clarify their thinking. This is an opportunity for them to really think about what aspects of their lives are working well for them and where they would like to take more control of their outcomes. It is the first step towards taking the reins in their life and creating something they will be proud and excited to live.

Step 2: *Define* the Problem
(15 minutes)

Working on their own, each student should review their Step 1 notes and begin to define one or more problem they would like to solve for themselves. This step is a good time for students to think about framing. They may not see themselves as having a problem (that's great!), but they may have questions that they want to answer. They can frame the answers to those questions as the solutions that they design.

Framing can also help in drilling down to the actual problem they want to solve. If they identify the initial problem as needing to find a career path to follow, they should think about what they want out of a career and what some of the challenges they, personally, are facing in figuring out a direction for their life. Here are a few examples of more specific problems that might work for Design Thinking:

- Is the problem that they are being pulled in one direction by their parents to pursue one career, while their heart and interests are pulling them towards a different career? They might use Design Thinking to solve *that* problem before they can settle on a career path or direction.
- Are they interested in so many job possibilities that it is difficult to choose just one? They can use Design Thinking to explore several different options.
- Or are they feeling lost because they don't know of any career options that sound interesting to them? They could use Design Thinking to help them explore new ideas *or* to come up with ideas for what they want out of a career in the first place.

After students have filled out the Step 2 portion of the worksheets, have them share with a partner and ask for feedback. Encourage students to ask their partner questions about their problems that may help them to find even more focus or identify additional detail. Students should add notes to their worksheet based on their conversation with a partner.

If students have listed more than one problem, ask them to choose just one to work on for the rest of the activity and let them know that Design Thinking is a tool that they can use any time they want to in order to solve the other problems, too.

NOTE: GRAVITY PROBLEMS

As students identify problems that they would like to solve, you may find that you need to talk with them one-on-one, in small groups, or as a large group about what we refer to as "gravity problems". Here is a little bit of background information if you need or would like to address problems over which the students have no real control:

Gravity problems are aspects of a situation that cannot be changed and, therefore, do not make useful design problems. A designer who wants to keep a falling object from breaking cannot stop gravity from acting on the object, so it is not useful to label gravity as the problem. Sometimes gravity problems can be reframed. The designer can identify the problem as needing a softer material where the object can land or as needing a way to slow down the speed of the falling object.

Here are a few examples of gravity problems in life that may be incredibly difficult or impossible to change:

- It's time to apply for college/university, but my grades or test scores are lower than my top choice requires. *Grades and test scores may be adjustable earlier on, but if you are in the process of applying to university* right now*, you are doing so with the grades and test scores you already have*.
- My parents cannot afford to send me to the summer program that I *really* want to attend. *While you may be able to reframe this problem to focus on how* you *can earn money on your own or seek out a scholarship, your family's financial situation is most likely not going to change in time to pay for the summer program.*
- The career I am interested in doesn't pay enough money for me to live the kind of life I want to live. *You can probably reframe this problem to finding a career with higher pay or figuring out a way to live a satisfying life on a lower income. However, it is unrealistic to think that you can change the average pay for the career over all*.
- I want to be best friends with Ariana Grande. *Unless you already know the pop star or have a friend who does, just getting into the same room to have a personal conversation with her is likely to be a gravity problem.*

If students bring up challenges that are truly gravity problems, they will need to ask themselves a few questions:

- Are there ways to reframe the problem so that they can create a solution that works within the circumstances of the gravity situation?
- Do they need to simply move on to another problem over which they *can* exert some control?

Some people may have more gravity problems than others – or they may perceive more gravity problems than others. The key to building a satisfying life is reframing the gravity problems as challenges that can be addressed *or* accepting these problems as the given circumstances and moving on to problems that can be solved.

Step 3: Ideation/Brainstorming
(10 minutes; optional: include time to work in small groups or for homework)

Using the Design Thinking packet, students should sketch at least 5 interesting or radical ways to solve their problem. Remind them that solutions do not need to be technological. In fact, in the case of designing our lives, most solutions will probably be action-based. What will solve this person's problem? Encourage them to be creative and bold! If they have time, they should sketch as many ideas as possible. It is good to include silly ideas as well as practical ones.

Optional: Give additional time for students to work in small groups and take turns brainstorming solutions to each other's problems. It is easy to get stuck when it comes to our own problems, and an outside perspective can bring a great deal of creativity and diversity to the brainstorming process. Alternatively, have students continue this step as homework and encourage them to invite their family members or friends to help. This step is optional due to potential timing limitations but will make the final outcomes more meaningful and empowering for the students.

After the brainstorm, have students review all of their ideas to complete the Brainstorm Assessment chart in the worksheet packet.

NOTE: BRAINSTORMING EXAMPLE
If you see students struggling with this step, it may be helpful to give them a simple example of what their brainstorm could look like. Here is a suggested example:

If your problem is that you don't spend as much time as you would like with a particular friend, your brainstorm might include things like:

- Schedule "play dates" (even high schoolers can schedule a regular time to get together and hang out at the park or the zoo or the museum)
- Reroute my trip to school so that I walk/drive/ride the bus past their house, and we can commute together.
- Find Hermione Granger's time turner necklace and add more time into the day!
- Get a summer job working at the same place as my friend.
- Organize study sessions with my friend.
- Offer to help them with their chores and then have them help with mine.
- Invent a time machine.

- Plan a summer road trip together.
- Invite them on a family vacation.
- Invite their whole family on a family vacation.
- Start a part time business together.

Step 4: Prototype
(10-15 minutes)

Have students consider how they can try out their solutions. What does their prototype need to look or feel? Considering the example in the video, if their solution is to become a world-famous photographer, how can they test this career without going all the way down the path? What actions can they take to test it out? Ask students to sketch out or outline a prototype action they can take to test their solution. If possible, have them come up with multiples options. At least one of their options should be doable within a one-week time frame.

Give students 5 or so minutes to work on this step on their own, and then give them a few more minutes to share out with a partner and ask for additional feedback or ideas.

Step 5: Test and Reflect
(1 week, optional: 1-2 class periods for brief presentations)

Give students a minute or two to reflect on their ideas. What are they excited to try? Ask them to choose one prototype option that they can complete in one week or less. Set a deadline for completing their test and reflecting upon it in the final section of the lesson worksheets. As part of their reflection, students should include what they would like to do in their next iteration of prototyping and testing their solution.

Optional: At the end of the test period, ask students to share their design thinking process and outcomes with the class by giving 2-5 minute presentations. Depending upon the personal nature of some of the problems, prototypes, or testing outcomes, you may choose to offer sharing out presentations as optional rather than requiring it of every student.