Why timed design challenges?

Low risk to students. Working with a partner or in a group makes it a collaborative experience. The timed portion engages the student out of necessity. Gives students an opportunity to focus on what they are working on (no time to compare what they are thinking to images on the internet or even peers in the classroom). Limiting the materials pushes the innovative design to the forefront of the challenge while the materials remain secondary to the work.
Examples of Design Challenges we have used in our own classrooms

1. Color Wheel, Torn Magazine Challenge

   Student were divided randomly into teams of 3-5 students. They were then presented with the specifics for the magazine challenge. Students must work together to come up with 1 cohesive composition that is “inspired” (not a copy of a color wheel) by the color wheel. You will only be using old magazines, glue and one piece of poster board. You will be given a small color wheel to use as reference. The time for this challenge is dependent of the size paper, but we use larger poster board sheets. The time allowed for this challenge is 4, 55 minute class periods. The 5th day (class period) is used for a critique, discussion and discussion questions. The challenge is great because you are able to see who thinks this project through using a 2D or a 3D lens. In this challenge, with the larger group of students, student personalities and leadership traits emerge.

2. Sculptural Hat Challenge

   In this challenge the students are working with limited materials. Upon entering the room students are told they must create a wearable/sculptural hat using only recycled lawn bags and a stapler/staples. The class is started immediately and the students must finish this project in 55 minutes. The following day there is a critique and discussion.

3. Recycled material fashion challenge

   In this challenge students are paired up with a partner (or there might be one team with 3 people). This challenge typically takes about 5, 55 minute class periods. The students are working with a few extra materials for this challenge, but they must come up with a runway ready wearable sculptural dress/outfit. The materials can range from black/white plastic trash bags, brown paper lawn bags, masking tape, packing tape, stapler/staples, aluminum foil, plastic wrap and any cans/bottles. The students usually pick their own partner for this challenge. Working with their partner the students are given the time restrictions for the challenge and told they are making a runway ready outfit due for a fashion show on the final day of the challenge. After the fashion show the students write a reflection and there is a discussion over the process of making an entire outfit.

4. 20 minute, 5”x7” index card sculptural challenge (example above)

   In this challenge students were given a pair of scissors and an index card as they walked in the door. After everyone was seated students were given the instructions for the challenge. 20 minutes to create a sculpture using only the card and the scissors. About 2 minutes was allowed for questions. “Can I use glue?” No. “Can I have an extra card” No. Etc. After time was called
students placed their work in front of them on their work table and walked around the room looking at the other work. After the walk around there was a discussion. Typical questions were, how did it feel when you were told to make a sculpture out of one index card? What was the hardest part of the design process? Did your work turn out the way you expected? Was your piece successful, why or why not?

After completing the design challenges (and when starting new projects) students are asked to recall the design process they went through when they completed past design challenges. Expected outcomes for asking the students to reflect was to give them more confidence in the design choices they were and would be making. Observed outcomes from employing these low risk challenges in the classroom are students with lower anxiety about committing and owning their independent ideas.