CREATIVITY

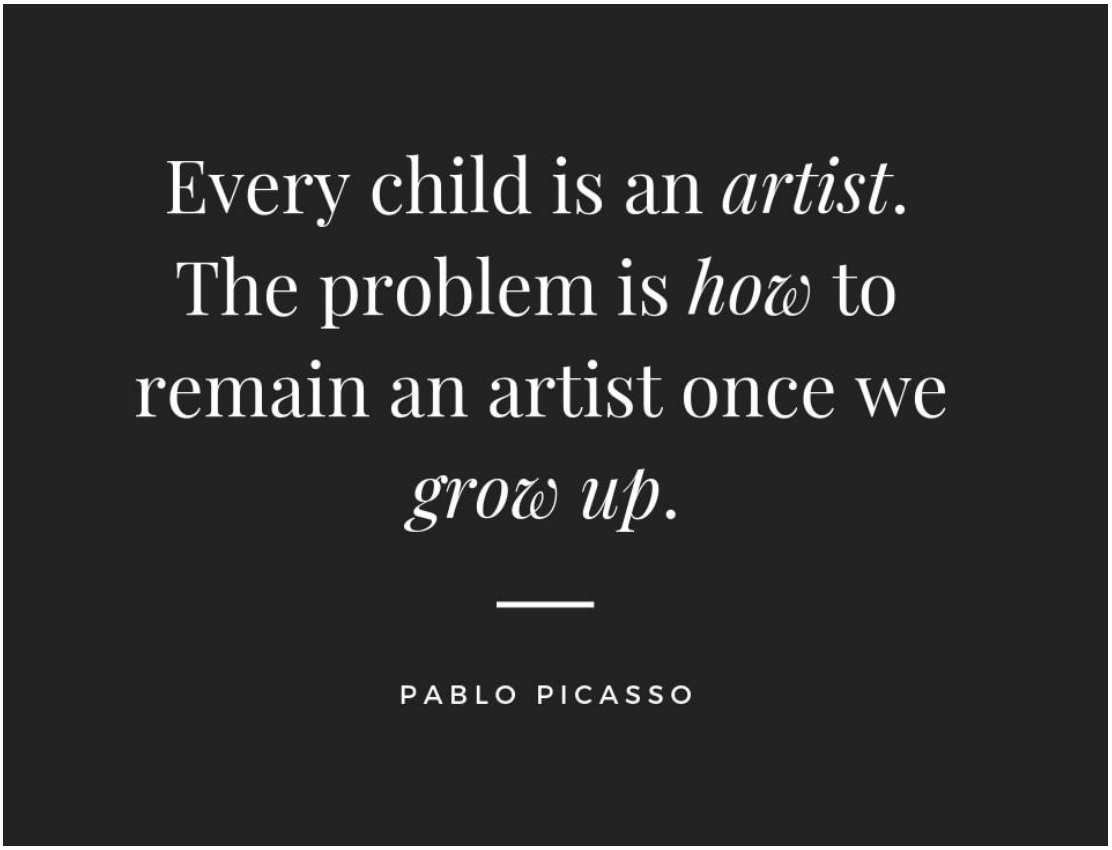
This brochure on Creativity was adapted from Cavana is a great Web site for design with many resources for teaching creativity: 9 clever ways to teach creativity.

Pablo Picasso is famously quoted for saying that "Every child is an artist. The problem is how to remain an artist once we grow up."

You might think you are not a creative person, or you might think you are a creative person. You might think of other people who you consider creative, and of others who you think are not. Regardless of these thoughts and opinions, its likely you think creativity, or lack thereof, is an inherent trait that a select few are born with. Research into learning and education has clearly shown this is NOT the case. Creativity is a skill, and it's a skill that can be learned and honed. Research also suggests that creativity thrives when it is socially-engaged—which makes it difficult due to the societal responses to the current pandemic.

By the time you have completed now nearly six semesters of chemistry and perhaps more of biology and/or physics, you should have at your fingertips quite a bit of knowledge about the way the natural world works. It's time to get creative and think creatively about biochemical problems, particularly as they have extensions into medicine and physiology. Creativity is an essential part of problem-solving for the future.

Below, are nine ways to encourage your creativity:



Set time aside for journaling

Scientists, writers, and artists often carry small journals with them to document thoughts and ideas as they strike.

By encouraging students to document their emotions and thoughts you are providing them with an avenue for expression. This also helps students to dissect ideas and communicate their emotions with ease.

Participate in five minutes of mindfulness each day

While it may be hard to get students to understand the concept of mindfulness to begin with, it will become a valuable tool that they can take into their adult lives.

Research from Harvard University has shown that regular meditation not only mitigates stress but also helps participants develop the ability to switch off their fight-or-flight responses and engage in a more thoughtful, creative mode of thinking. This is known as divergent thinking.

Build brainstorming sessions

As the idea of dictation becomes less popular amongst teachers, why not opt for collaborative learning through short and sharp brainstorming sessions?

Not only does brainstorming improve critical thinking skills, but it also encourages individuals to navigate different perspectives and opinions in order to come to achieve a common goal—a skill that is never too early to learn.

While brainstorming, you can encourage students to mood board their ideas. Here's why creating mood boards is made for so much more than just inspiration.

Use gamification to encourage participation

Gamification can be defined as the application of gaming principles to a project. This includes elements like point scoring, prizes, and rules in the hopes of increasing attention and participation levels.

In a study conducted by Michigan State University, researchers found a correlation between students who play video games and higher creativity levels.

While there is an expansive range of educational video games available, it's also easy to apply gamification principles to regular learning tasks.

In a previous article on Learn, game designer Katie Salen says a good designer thinks about the same things that a good teacher thinks about:

"When you begin to see how games work, you can begin to see how a classroom might work more effectively. The framework of how video games work can also be used to design class participation."

REPORT CARD

Old Wellenton University

STUDENT NAME:

STUDENT NUMBER:

YEAR AND MAJOR:

GRADING PERIOD:

COURSE NAME	PROFESSOR'S NAME	FINAL GRADE	TEACHER'S COMMENTS
Introduction to Speech Communication			
Teaching English as a Second Language			
Introduction to World Literature			
Introduction to Psychology			
Advanced Statistics			

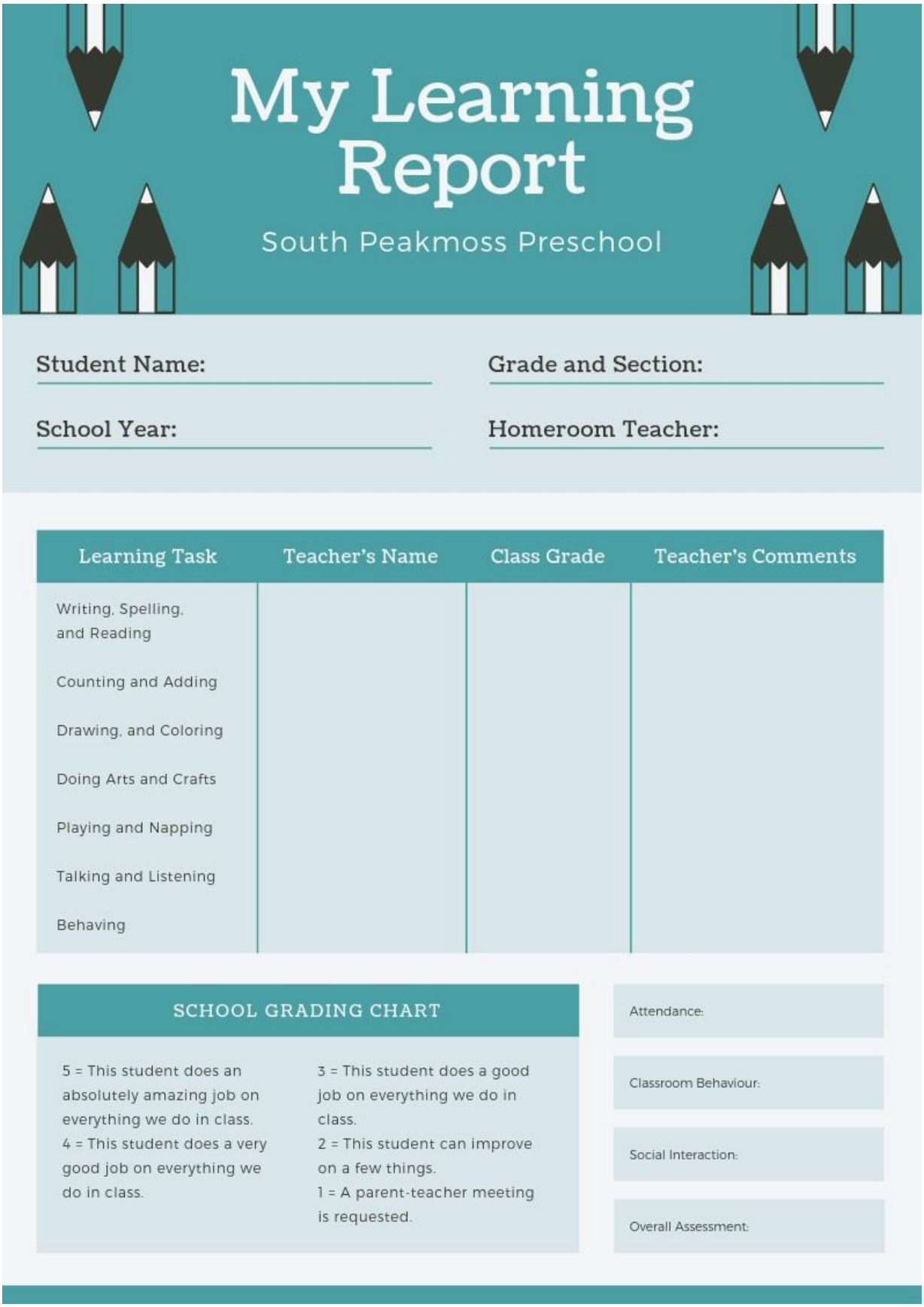
GRADING SCALE	
A+ - 96.80 to 100.00	C- - 69.80 to 72.79
A - 92.80 to 96.79	D+ - 66.80 to 69.79
A- - 89.90 to 92.79	D - 62.80 to 66.79
B+ - 86.80 to 89.79	D- - 59.80 to 62.79
B - 82.80 to 86.79	F - 0.00 to 59.79
B- - 79.80 to 82.79	INC - Incompleted Course
C+ - 76.80 to 79.79	DRP - Dropped by Student
C - 72.80 to 76.79	

1st Semester

2nd Semester

Semestral Average

Overall Average



Encourage risk taking

Often, the most successful ideas are those that are considered too risky to begin with. History has proven this idea too. This was the case for Thomas Edison when he invented the lightbulb, and with the Wright brothers when they were working on the first airplane.

In fact, you could argue that risk-taking is part of the equation when it comes to developing groundbreaking ideas.

One way to facilitate risk-taking ideation is to set up a "consistent-learning zone" within the classroom. This way, students are less focussed on the idea of being right, and more interested in the idea of creating new ideas. This zone also consolidates the idea that we are always learning and growing.

Leave the classroom more often

Much like the office, staying in one setting for a long period of time can hinder your creative flow.

Research from the University of Kansas has found that participants in a study experienced a 50 percent boost in creativity after being surrounded by nature for a few days.

Creativity relies on a stimulation of the senses, and it's worth teaching students to immerse themselves in new surroundings when they are required to call upon their creative thinking.

Allow students to teach

A study published in the academic journal of Memory & Cognition found that students who taught others performed better when tested.

Aside from a potential boost in their grades, asking students to teach their peers requires them to creatively assess how they are going to take information and present it in an interesting way.

The study also showed that simply telling learners that they would later teach another student changed the student's mindset enough so that they engaged in more effective approaches to learning than their peers who simply expected a test.

THANKS FOR COMING, GUYS!

My Graduation Party

Thank you for celebrating with me! Your kindness and gifts are much appreciated.
-Korina

YOU'RE ABSOLUTELY AMAZING

CONGRATULATIONS!

You deserve to celebrate this huge milestone. Let's party!
From,
Bartholomew

Use visual aids

“You can transform the world when you approach it with the goal of imagining and creating solutions,” write the creators of Design Thinking for Educators. Instead of asking your students to present an assignment in the usual format of an essay, you can ask them to experiment with new mediums and present them in a creative manner of their own choosing.

Learn more about creating learning materials using Canva with Canva for Education.

Encourage questions

With a full learning schedule, children's’ burning questions can go unanswered and forgotten. Part of creative problem-solving is noticing a problem and asking ”why are things like this?” and “can this be done better?”

To encourage questions, you can give your students a dedicated wall to write their questions on in their own time. This can inform you of the common themes to address in class, or students can work on research projects that will answer some of these questions.

CERTIFICATE OF RECOGNITION

Revlova Media awards

TAYLOR MARSHALL

for her outstanding performance as
Chief Officer of Finance for the year 2020.

ISABEL MERCADO
President & CEO

RONALD CARLSON
Head of HR

The Assignment

The assignment, which is mentioned in your syllabus as "Project" worth 7%, is very open ended. The only stipulation is that you, with the eight creativity-encouraging suggestions above, put some thoughts into considering questions you might have about biochemistry or medicine at the biochemical level. You can create what you will submit for the assignment in any fashion you like: a typical essay, a video presentation, a work of art (with explanation), a poster, etc. It's up to you and your own creative ideas. Have fun with it.

Some questions to consider: What are some genetic diseases that cause metabolic defects and how can they be diagnosed or treated? What are some interesting metabolic pathways that might exist and how can they be found and what use might they have? What seem to be the most important biochemical questions for you and the next generation of scientists? These and any others along the same line are offered for your consideration in this assignment.

This assignment has THREE parts.

Part 1: The first is to consider what you might like to investigate from questions you have. You will then list that topic with those of the rest of your team and submit a list with the top 3 priorities your team discussed. Teams will be posted by **Feb 7**, and the Part-1 list will be due **Feb 19**.

Part 2: You will get feedback on your list of topics by March 1. With that topic, your team will work to create a one-page document that describes a diagnostic strategy (if your topic is a disease), or a detection method (if your topic is a metabolic pathway), or some other intermediate aspect of your topic (after discussion with Dr. Tolan (contact in office hours or via email – tolan@bu.edu)). This document is **due March 19**. You will be offered feedback within a few days to give you assurance that you are on the right track for completing the assignment. Feedback will be received by April 10.

Part 3: For your chosen topic, discuss a treatment for the disease (if your topic is a disease), or discuss a use for a particular metabolism, for either the organism or for humans (if your topic is a metabolic pathway), or if your topic is some other biochemical issue discuss your thoughts about it (after discussion with Dr. Tolan (contact in office hours or via email – tolan@bu.edu).

This will continue from Part 2 of your project and be a 1–2 page document or other media. For this part, you can create what you will submit for the assignment in any fashion you like: a typical essay, a video presentation, a work of art (with explanation), a poster, etc.

It doesn't have to be anything that is already known, and even better if it isn't. **Be creative here.** The better projects will have some of your own thoughts and creativity infused into your work. Complete the assignment with the final submission due midnight **Sunday May 4, 2024** before Finals Week.