California State University, Monterey Bay

Digital Commons @ CSUMB

5-2019

The Benefits of Art Integration in Schools

Amy Le
California State University, Monterey Bay

Follow this and additional works at: https://digitalcommons.csumb.edu/caps_thes_all

Recommended Citation

Le, Amy, "The Benefits of Art Integration in Schools" (2019). *Capstone Projects and Master's Theses*. 483.
https://digitalcommons.csumb.edu/caps_thes_all/483

The Benefits of Art Integration in Schools

Amy Le

California State University, Monterey Bay

The Benefits of Art Integration in Schools

Introduction

The presence of art instruction in the elementary classroom has been drastically reduced with class time focused on mandated curriculum and standardized test preparation. Art integration, an approach to learning that combines traditional curriculum with art, may not only provide students with opportunities for greater academic achievement and personal growth, but in addition, may provide a solution to this problem. To address this need, I have created a 3-day science lesson that integrates art for first grade students at Olson Elementary School in Marina, California.

Needs Statement

Art integration is an instructional strategy used in classrooms to connect the arts with everyday curriculum, such as reading, math or science. Because it combines typical class lessons with art, giving students a more hands-on approach to learning, art integration has been shown to increase academic achievement. According to a study aimed to determine the effects of art integration on a group of fourth grade students, integrated arts instruction resulted in statistically significant improvement in English Language Arts (ELA) and mathematics (Harloff, 2011). Similarly, significant improvement in physical science was demonstrated by upper elementary school children when dance and visual art were combined with traditional STEM curriculum (Graham & Brouillette, 2016). Brouillette, Childress-Evans, Hinga and Farkas (2014) reported that the use of art resulted in statistically significant improvement in the oral language skills of

English Language Learners (ELLs) in kindergarten to second grade. In addition to greater

academic performance, students are also more engaged in their learning, motivated to invest their

energy into creating products that are authentic, as opposed to merely reproducing knowledge

(Rabkin & Redmond, 2006). Because work in art-integrated classrooms provide students with

greater opportunities to personalize or connect their own experiences with their work, a deeper

understanding of content that goes beyond the superficial is achieved (Rabkin & Redmond,

2006). Furthermore, engaging in art provides children with a gateway for expression, creativity

and innovation; this results in opportunities for personal development by promoting confidence

and self-worth (Hallam, Hewitt & Buxton, 2014).

It is evident that blending art with traditional academics is highly beneficial for students

on more than one level. However, given the current curriculum, art integration is easier said than

done. After No Child Left Behind (NCLB), an educational policy that placed the focus of school

curriculum on standardized testing was passed, a significant amount of class time became

delegated to test-prep activities; this focus on testing, in turn, led to a dramatic reduction of the

arts in schools across the country (Chapman, 2005). Although teachers believed that art enhances

academic achievement, the pressure and demand to cover mandated curriculum was too high,

preventing them from veering from the traditional pathway of standard curriculum (Oreck,

2004). Furthermore, many teachers felt that they the lack materials, time, and higher-level

support required to integrate art into their classrooms (Oreck, 2004). This sentiment is further

illustrated in a study conducted by Purnell (2004), where teachers' perceptions and use of art in

the classroom was explored. According to the study, 94% of surveyed teachers believed that art integration improves overall academic achievement of students; however, the majority of these teachers failed to make art available in their classrooms (Purnell, 2004). With a combination of mandated curriculum and a lack of resources, the presence of art in the classroom has become virtually nonexistent. However, with all the positive benefits associated with integrating art in the classroom, including higher academic achievement and promotion of creativity and innovation, the significance of providing art integration early on is critical.

An ever-decreasing availability of art in the classroom results in missed opportunities for greater academic achievement and personal growth. In order to address this need, as well as spread knowledge on the significance of art integration and its benefits, I intend to teach a class of first graders at Olson Elementary, Marina, CA, a science lesson, combining traditional methods with the creativeness and innovation of art. The purpose of this project is to take a glimpse into the world of art and to ultimately highlight the significance that art can have on children, both academically and developmentally. Because this project is hands-on, students will not only be able to create a piece of artwork that encompasses their imagination, but they will also be more engaged in their learning, obtaining a deeper understanding of the topic itself.

<div align="center">Theory Application</div>

Howard Gardner believed intelligence comes in many different forms as described in his Theory of Multiple Intelligences. According to his theory, there are seven different types of intelligences: verbal-linguistic, logical-mathematical, visual-spatial, bodily-kinesthetic, musical,

interpersonal and intrapersonal. Individuals, he believed, are unique in the sense that everyone possesses all seven of these intelligences, but in discrete amounts (McCoog, 2010). While one person may be strong logically, another may be strong visually. This does not mean, however, that they are not "intelligent" in the other six areas; these individuals are merely stronger in those particular two. This theory also challenges the traditional psychometric views where intelligence is believed to be attributed to set abilities, skills, and knowledge (Ritchhart, 2001). When applied to the classroom, Gardner's theory may be a beneficial tool for teachers helping them reach more students effectively (Hopper & Hurry, 2000). Hopper and Hurry (2000) observed, in a project that explored the use of multiple intelligences in the classroom, several effects on learning including an increased awareness in the individual learning process, stimulation of active learning, and increased motivation and engagement in lessons and activities. Furthermore, children's self-concepts were enhanced when they were able to recognize their ability to learn through different means (Hopper & Hurry, 2000). By applying Gardner's theory to the classroom, teachers give their students the chance to utilize more than one intelligence in their learning, potentially providing a pathway to greater academic success and personal growth.

Because the traditional classroom views intelligence through a psychometric perspective, a "one-size-fits-alls" style of teaching and assessment is often implemented. With the application of Gardner's Theory of Multiple Intelligences to the classroom, however, students can learn in various innovative ways and exhibit their academic abilities by exercising their lesser utilized intelligences. In a study conducted by Scogin and colleagues (2017), the effects of an

experiential learning program, a project-based learning style, on student test scores was examined. This hands-on approach to learning, which targeted the untraditional intelligences of visual-spatial, bodily-kinesthetic, and interpersonal, gave students the opportunity to physically engage and apply the material they learned to reality (Scogin et al., 2017). Scogin et al. (2017) concluded that students' standardized test scores were found to have improved significantly compared to their scores before participation in the program. By providing students the opportunity to utilize their different intelligences, as seen in the study above, their abilities and intellect will be better captured and displayed. For this reason, I am creating an art integrated science lesson to showcase the use of multiple intelligences, verbal-linguistic and visual-spatial in particular.

Consideration of Diversity

My project will be conducted with a class of first graders at Olson Elementary School in Marina, California. The ethnic composition of the students is expected to reflect that of the school. According to the School Accountability Report Card (2018), Olson Elementary is comprised of 4.3% African American, 0.5% American Indian or Alaska Native, 6.3% Asian, 5.6% Filipino, 46.2% Hispanic or Latino, 2.3% Native Hawaiian or Pacific Islander and 19% White. In addition, 64% of the students come from socioeconomically disadvantaged backgrounds. Furthermore, 20.8% are English learners. I will be conducting my project in English, so the participants must be English proficient enough in order to thoroughly understand the material and complete the activities. Moreover, my project is intended for first graders

specifically; it is unlikely that the lesson will apply to younger children, adolescents or older adults.

Learning Outcomes

I intend to provide three, 30-minute lessons to a class of first graders at Olson Elementary. At the end of my lessons, participants will:

1. Color and identify the different parts of a fish.

2. Draw and describe the different functions of each part of the fish.

3. Demonstrate knowledge of warm and cool colors.

Method

Day 1

First, I re-introduced myself to the class and told them why I was there. I started out by showing them the video: https://www.youtube.com/watch?v=u_Xv5BRnflA. Then, I drew a picture of a fish on the whiteboard. I asked the class to turn to their partner and identify the similarities and differences they see between fish and people. After brief talk with their partners, I asked the entire class to share what they came up with while I listed their responses on the whiteboard. Then I posed the question, "why do fish have these different parts?", labeling the parts of the fish on the whiteboard including the gills, scales, fins and tail as participants turned to their partners again to brainstorm ideas. I called the class back together, listened to some ideas, and then explained the function of each part of the fish. Then, I asked the participants to complete a worksheet by cutting out and labeling the different parts of a fish. See Appendix A. After walking around and seeing that everyone had finished, I went over the worksheet with the

participants. During the remaining couple of minutes at the end, I handed out fish stickers to each participant.

Day 2

I started the class by drawing an empty color wheel on the whiteboard, explaining to the participants that they were going to learn an art concept today. I asked the class what the colors of the rainbow were and explained to them the difference between primary and secondary colors while filling in the color wheel. Then, I asked the class to turn to their partner to come up with things that are warm and bright; I gave them the example of the sun to help them out. After a minute or two, I asked them to share to the class while I jotted their responses down on the board. I then asked them what things are cool and wrote them on the board as well. Using these answers, I explained to them the art concept of warm and cool colors. Then, I showed the video: https://www.youtube.com/watch?v=htN1VJW3ePo to recap everything. I then asked the participants to take out the worksheet they had previously labeled the prior day and asked them to use warm and cool colors to fill in different parts of their fish. For example, I asked them to locate the tail and color it using a warm color; or locate what the fish uses to breath and color it using a cool color. In the last couple of minutes, I handed out another fish sticker to each participant for completing their worksheets.

Day 3

On the final day, I started the class by refreshing the participants' memories on the functions of the different parts of a fish. I drew a fish on the whiteboard again, pointed to a part of the fish, such as the gills, for example, and asked the participants to explain what its function was to their partner, then as a whole class collectively. Then, as a refresher on warm and cool

colors, I challenged the participants to a short game where they identified the type of color from an image projected on the board. See Appendix B. I then provided them with a blank sheet of paper with either the word "warm" or "cool" on them, and asked them to draw a fish with all the parts, using the colors that corresponded to their labeled paper. I walked around pointing out different parts and asked them to recall the functions for me as a way to check for understanding.

Results

Learning outcome 1 was that participants would color and identify the different parts of a fish. I believe this outcome was partially met. Looking at the worksheets completed on the first day, 88% of participants identified and labeled the different parts of the fish correctly. Because the worksheets were printed out incorrectly, eliminating the arrows pointing to the different parts and the gills altogether, there were a couple of worksheets where I had trouble deciphering whether or not the participants accurately identified each part. In order to meet the learning outcome, I also planned on participants coloring different parts of their fish according to my instruction; for example, "color the fins in a cool color". However, due to participants' excitement to color, I was unable to follow through with my initial plans. Because of this, I would say the outcome was only partially met.

Learning outcome 2 was that participants would draw and describe the functions of each part of a fish. I believe this outcome was met. All of the participants used their imagination to create their own type of fish. Although some either chose not to add specific parts to their fish, or simply forgot, 81% of participants drew fish with all the necessary parts - gills, fins, and a tail. For the second part of the learning outcome, all participants displayed understanding of the functions of the parts of a fish. Although I was unable to ask each individual to describe each

part of a fish, I obtained a general idea that participants had satisfactory knowledge through their enthusiasm and quick responses to my questions. Because of this, I believe this outcome was met overall.

Learning outcome 3 was that participants would demonstrate knowledge of warm and cool colors. I believe this outcome was also met. The participants had no trouble with the warm and cool color "game" and further displayed their knowledge through the activity on day 3. 88% of participants colored the fish they created according to the label on their worksheet. Although some individuals showed deviation in their choice of background colors, they kept their fish either "warm" or "cool." Because of this, I would say all participants successfully demonstrated their knowledge of warm and cool colors, understanding the difference between the two.

Discussion

I believe this project was successful because participants were enthusiastic and engaged throughout the lessons and activities. I think this was due to the integration of art into a traditional science lesson; this combination provided participants with a more hands-on approach to learning which increased engagement. In addition, participants met all three learning outcomes. Although they had some understanding of fish anatomy prior to my lessons, the art concept of warm and cool colors gave them something new to learn, apply, and integrate into their pre-existing knowledge. In addition, my project, consistent with Gardner's Theory of Multiple Intelligences, gave participants the opportunity to utilize both their verbal-linguistic and visual-spatial intelligences as a means of learning and assessing their knowledge and understanding. Because participants were given more than one way to demonstrate their knowledge, I think there was a greater amount of learning.

In terms of diversity, I think my project was inclusive. However, I did have expectations that all participants could read sufficiently in order to complete the labeling worksheet. Some participants did struggle with reading the parts of the fish, such as eyes and gills; however, I sat down with them to help them sound out the words. Going back, I should have read out all of the words ahead of time to make sure all participants had a clear understanding of the words in front of them.

If I could do this project again, I would be clearer when giving out instructions so that participants fully understand what I expect of them; I would also ask participants to repeat back the instructions to me, to make sure they comprehend. In addition, if I had more time and resources, I would have participants paint, cut colored construction paper, or build 3D fish models instead of just drawing and coloring. I feel like the lesson did not dive as deep into art as I would have liked, but considering how little time I had, I think drawing and coloring served its purpose. Regardless, I think this project was still engaging and participants are taking away greater knowledge on the topics taught.
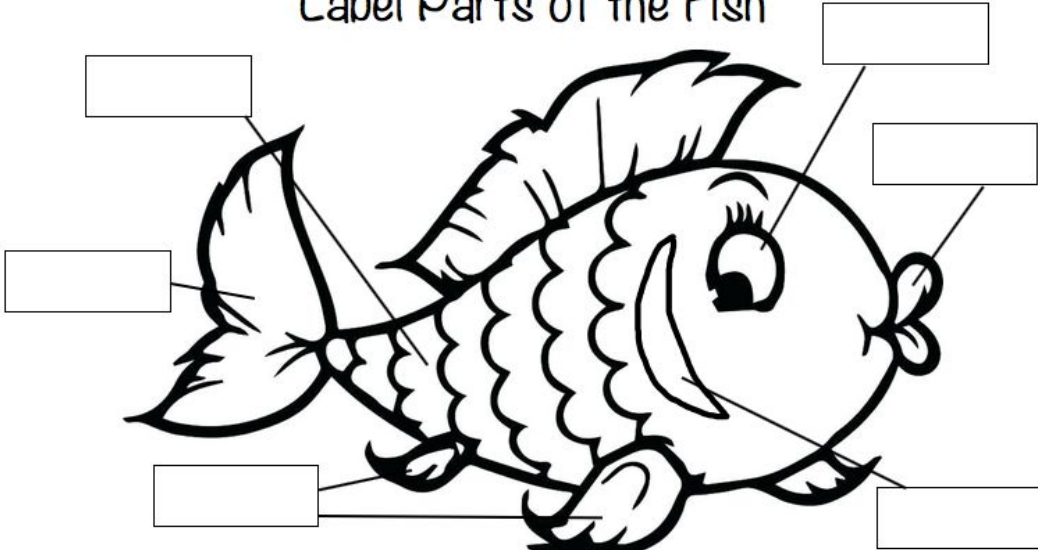
References

Brouillette, L., Childress-Evans, K., Hinga, B & Farkas, G. (2014). Increasing engagement and

   oral language skills of ELLs through the arts in the primary grades. *Journal for Learning*

   through the Arts, 10. Retrieved from https://escholarship.org/uc/item/8573z1fm

Chapman, L. H. (2005). Status of elementary art education: 1997–2004. *Studies in art education,*

   46, 118-137. Retrieved from https://www.jstor.org/stable/3497071

Graham, N. J. & Brouillette, L. (2016). Using arts integration to make science learning

   memorable in the upper elementary grades: A quasi-experimental study. *Journal for*

   Learning through the Arts, 12. https://doi.org/10.21977/D912133442

Hallam, J. L., Hewitt, D. & Buxton, S. (2014). An exploration of children's experiences of art in

   the classroom. *International Journal of Art & Design Education, 33*, 195-207.

   https://doi.org/10.1111/j.1476-8070.2014.12022.x

Harloff, D. F. (2011). The impact of integrated arts instruction on student achievement of fourth

   grade urban students in English language arts and mathematics. *Education Doctoral.*

   Paper 59. Retrieved from https://fisherpub.sjfc.edu/education_etd/59

Hopper, B. & Hurry, P. (2000). Learning the MI way: The effects on students' learning of using

   the theory of multiple intelligences. *Pastoral Care in Education, 18*, 26-32.

   http://doi.org/10.1111/1468-0122.00176

McCoog, I. J. (2010). The existential learner. *The Clearing House, 83*, 126-128.

   https://doi.org/10.1080/00098651003774828

Oreck, B. (2004). The artistic and professional development of teachers: A study of teachers'

    attitudes toward and use of the arts in teaching. *Journal of Teacher Education, 55*,

    55-69. https://doi.org/10.1177/0022487103260072

Purnell, P. (2004). A place for the arts: The past, the present and teacher perceptions.*Teaching*

    Artist Journal, 2, 153-161. https://doi.org/10.1207/s1541180xtaj0203_3

Rabkin, N. & Redmond, R. (2006). The arts make a difference. *The Journal of Arts*

    Management, Law, and Society, 36, 25-32. https://doi.org/10.3200/JAML.36.1.25-32

Ritchhart, R. (2001). From IQ to IC: A dispositional view of intelligence. *Roeper Review, 23*,

    143. https://doi.org/10.1080/02783190109554086

School Accountability Report Card (2018). *2017-2018 School Accountability Report Card for*

    Ione Olson Elementary School [PDF file]. Retrieved from

    http://sarconline.org/SarcPdfs/10/27660926026249.pdf

Scogin, S. C., Kruger, C. J., Jekkals, R. E. & Steinfeldt, C. (2017). Learning by experience in a

    standardized testing culture: Investigation of a middle school experiential learning

    program. *Journal of Experiential Education, 40*, 39-57.

    http://doi.org/10.1177/1053825916685737

Appendix A

Coloring and matching worksheet for Learning Outcome 1

Label Parts of the Fish

| eye | mouth | fins | tail | scales | gills |

Appendix B

Warm or Cool Color Game
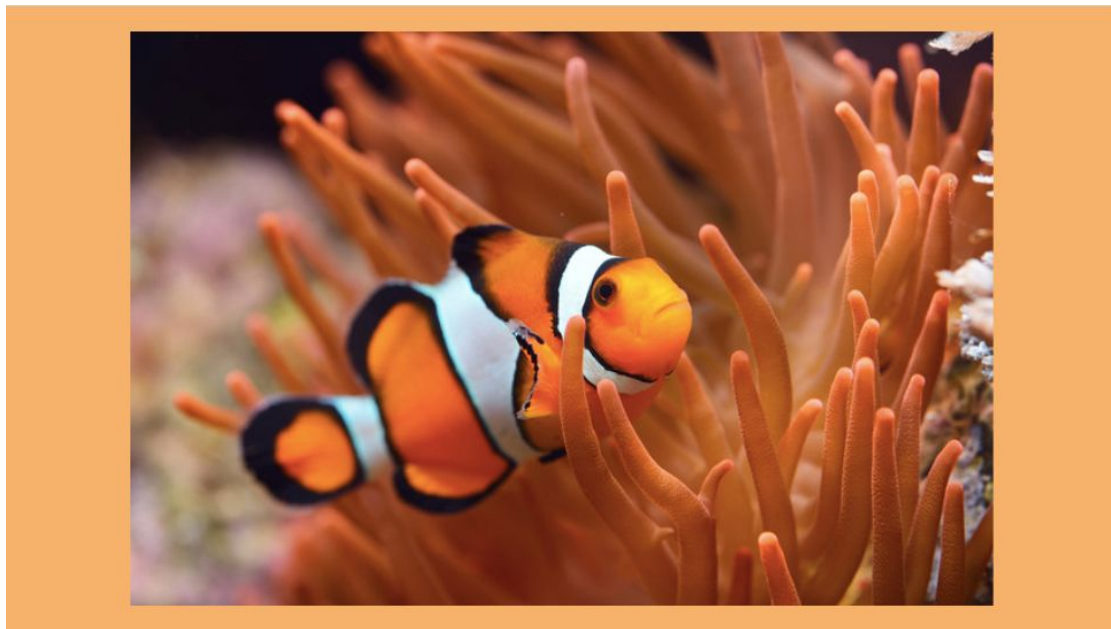
Appendix C

Capstone Presentation

The Benefits of Art Integration in Schools
Amy Le

Need

- art integration = art + everyday curriculum
    - increases academic achievement
    - opportunity for personal growth
- No Child Left Behind Act
    - placed focus of curriculum on standardized tests
    - teachers held accountable for student performances
- lack of resources, time, and support
→ dramatic reduction of the arts in the classroom

Howard Gardner's Theory of Multiple Intelligences

- individuals possess discrete amounts of each intelligence
- art integration in the classroom
  - more engaging methods of learning
  - abilities better captured and displayed

Project

- a 3-day art integrated science lesson on the anatomy of fish
  - art concept = warm and cool colors
- Who? - a first grade class
- Where? - Olson Elementary School in Marina, CA
- Why?
  - ever-decreasing availability of art in the classroom
  - opportunity to showcase benefits of art integration

Learning Outcomes

At the end of my lessons, participants will:

1. Color and identify the different parts of a fish.

2. Draw and describe the different functions of each part of a fish.

3. Demonstrate knowledge of warm and cool colors.

Methods

Day 1
-   introduction of fish anatomy and their functions
-   coloring and labeling worksheet (part 1)
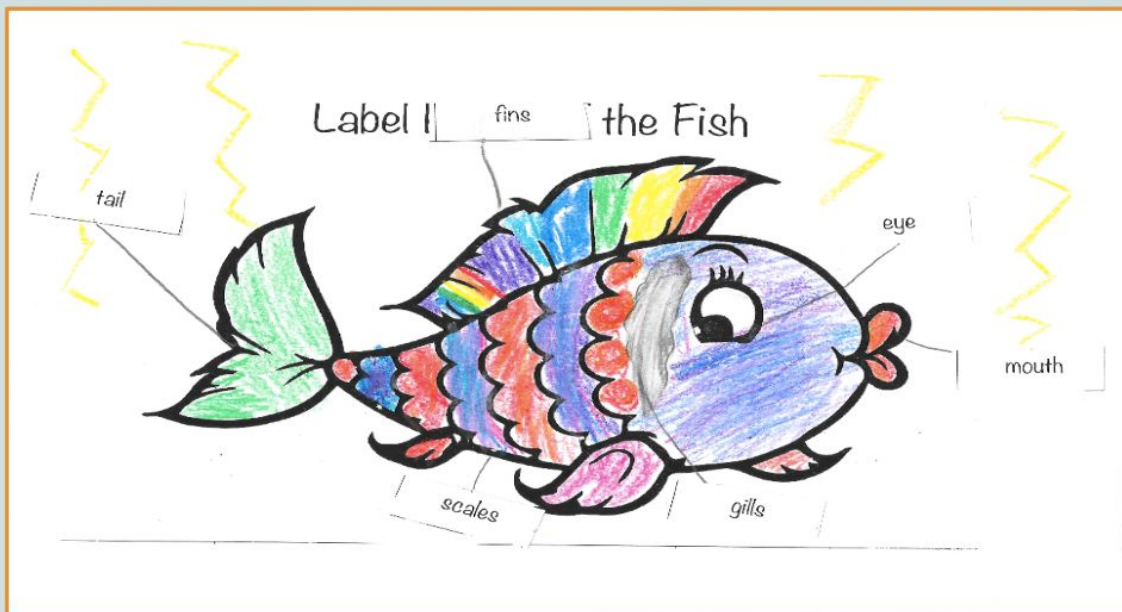
Day 2
-   introduction of warm and cool colors
-   coloring and labeling worksheet (part 2)

Day 3
-   review of Day 1 and Day 2 concepts
-   "draw your own fish" activity

Results

LO1: Color and identify the different parts of a fish. - Partially Met

LO1: Color and identify the different parts of a fish. - Partially Met

LO1: Color and identify the different parts of a fish. - Partially Met

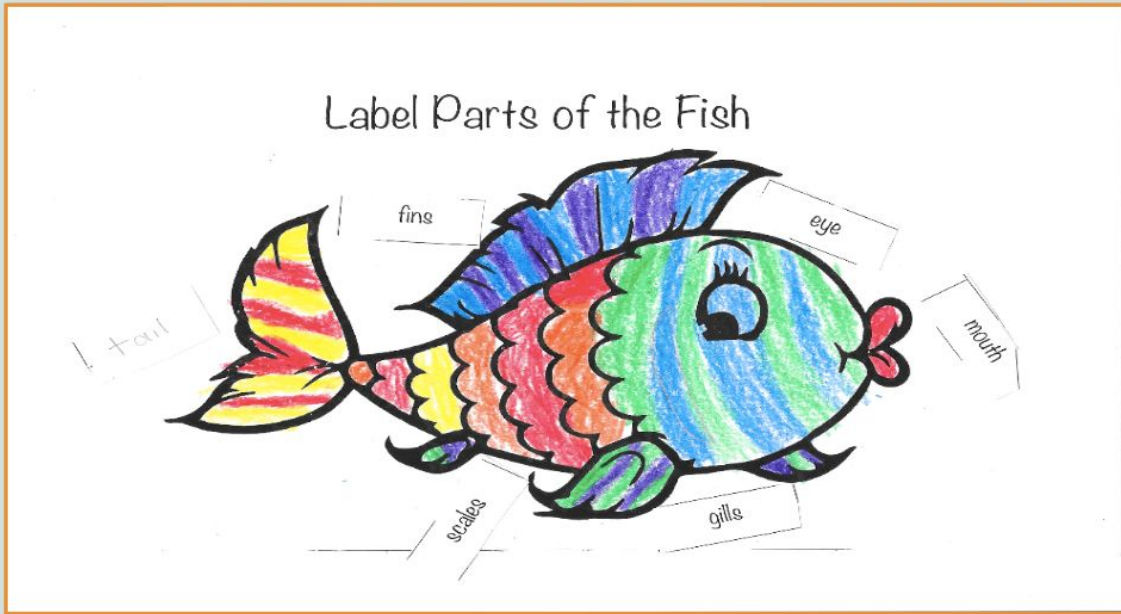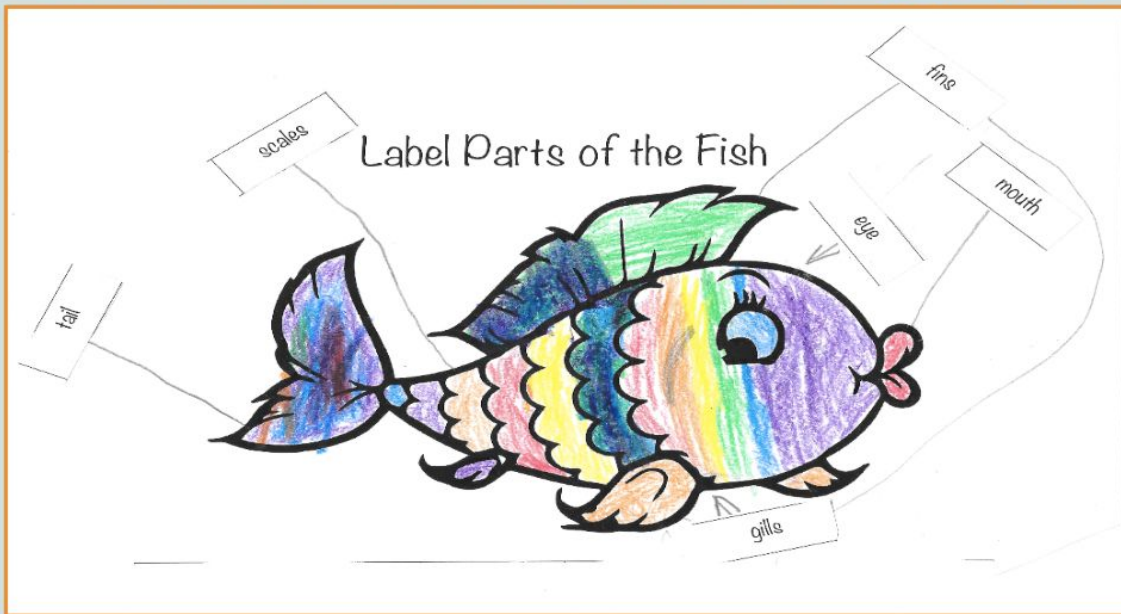**LO1: Color and identify the different parts of a fish. - Partially Met**

Label Parts of the Fish

LO1: Color and identify the different parts of a fish. - Partially Met

Label Parts of the Fish

LO2: Draw and describe the different functions of each part of a fish. - Met

Cool

LO2: Draw and describe the different functions of each part of a fish. - Met

Warm

flame merias.

LO3: Demonstrate knowledge of warm and cool colors. - Met

Prines Pery

Cool

LO3: Demonstrate knowledge of warm and cool colors. - Met

cadence

Warm

SPIKe

LO3: Demonstrate knowledge of warm and cool colors. - Met

Cool

Attack

Discussion

- project = **successful**
    - enthusiastic and engaged
    - application of **Gardner's Theory** → greater amount of learning
- if I could do this project again - **more creativity**
    - use paint or construction paper
    - build 3D fish models

Thank you! Questions?