Weber County 4-H Pixelation Contest

In this contest, youth will use **Computational Thinking strategies** to make their own **pixelation** picture using a medium of their choice.

What is a Pixel? Pixels are the individual building blocks of every digital photograph and most other digital images. In addition to pixels in a digital image, pixels can refer to pixels in a digital display, a digital camera sensor, and other devices.

Computational Thinking is a thought process of solving a problem. Computational thinking is often associated with computers and coding, but it is important to know that computational thinking can be used in many other areas, including sewing and crafts.

There are four parts to **Computational Thinking**:
-**Pattern Recognition**: analyze and look for repeated patterns or sequences
-**Decomposition**: break the problem down
-**Abstraction**: focus on important parts and remove unnecessary parts
-**Algorithmic Thinking**: use step by step directions

To learn more about computational thinking, visit: https://teachyourkidscode.com/what-is-computational-thinking/

Entry Requirements

Medium: Project mediums may include, but are not limited to, the following:

Graph Paper	Plastic Canvas	Crochet
Perler Beads	LEGOs	Rug Hook
Cross Stitch	Diamond Art	Digital Art
Embroidery	Paper	Minecraft—must be an
Fabric	Photographs	original design
Quilting	Knit	

Original Work: Entries must be the original work of one youth. Adult leaders may demonstrate a skill and help Junior age youth with equipment where safety is a concern, but the project should be the work of the youth.

Categories: The Pixelation Contest is split into two categories, Kit and Original Design. If desired, participants can enter a project in each category, but can only enter one project per category:

- **Kit Category**—In this category, a store-bought kit will be used for your project. A kit would include an exact pattern, even if it is modified by the participant. If a kit is used, adjustments to the pattern may be made, but should be documented on the pattern and in the reflection paragraph.
- **Original Design Category**—Participants may pattern their design after an existing picture or character, or they may create an original picture. Pixelate the picture on your graph paper by coloring squares on the graph paper using the same colors you are going to use in your finished project. An online pixelation maker or graph paper is acceptable. Follow your design, make your project using the medium of your choice.

Where to Enter: Entries should be submitted via **ZSuite** under **Pixelation Contest**. Youth must register on ZSuite to participate. Youth may enter one project per category.

What to Submit

1. **Pixelation Project:** 3-4 pictures of your project (screenshots will be accepted for digital art, Minecraft, and similar submissions). The participant should be in at least one of the pictures. Include a picture of your whole project and some close ups. A ruler or coin can be included in some pictures to provide scale.
2. **Artist Statement:** A written paragraph reflection on your project. Summarize the project and explain how you used Computational Thinking to create your picture (see the sample questions provided under "Components of Computational Thinking").
3. **Graph Paper Design or Pattern** that was used to create the project.

Components of Computational Thinking

Computational Thinking is the thought process of solving a problem. Oftentimes when a person creates a project or solves a problem, they use computational thinking without realizing it.

When writing your Artist Statement, please explain how you used Computational Thinking. Below are sample questions to help organize your thoughts. Please answer at least **one question per section** (one or two sentences per question will suffice).

Pattern Recognition *(analyzing and looking for repeating patterns or sequences)*
 -Are there patterns in your project?
 -Do any patterns repeat?
 -Is your project symmetrical or asymmetrical?
 -How did you use Pattern Recognition in your Pixelation project?

Decomposition *(breaking down the problem)*
 -How did you break down the project from beginning to end?
 -Were there parts of your project that were more difficult than others?
 -How did you use Decomposition in your Pixelation project?

Abstraction *(focusing on important parts and removing unnecessary parts)*
 -Which were the most important parts of your project?
 -Were there any unnecessary parts to the project?
 -Was there anything you eliminated to make this project easier or better?
 -How did you organize your project while you were working on it?
 -How did you use Abstraction in your Pixelation project?

Algorithmic Thinking *(using step-by-step instructions)*
 -Did you use step-by-step directions provided in the kit?
 -What are the step-by-step instructions you used in your own project?
 -Did you skip any steps? What was the result?
 -If someone else wanted to make your project, what instructions or advice would you give?
 -How did you use Algorithmic Thinking?

ELIGIBILITY

1. Participants must be 4-H members currently enrolled and have an "active" status in ZSuite prior to entry.
2. Age Division: Age division are determined by a participant's grade as of September 1st of the current 4-H year as follows: Junior: Grades 3, 4, 5 and must be at least 8 years old; Intermediate: grades 6, 7, or 8; Senior, grades 9, 10, 11, or 12. Participant entries will be judged using the included Judging Rubric and will be eligible to earn a blue, red, or white ribbon. Prizes may be awarded depending on contest and availability.
3. Youth must enter as individuals and may not work in teams.
4. Original Work of 4-H Member: All entries must be the original work of the participating 4-H member(s) and created during the current 4-H year (September-August). Participants may submit only one entry per category for judging.
5. Format of Entries: Entries must be in a .jpeg, .jpg, .png, or PDF format.
6. Entries must follow guidelines listed under **Entry Requirements** (see above).
7. Display and Future Use Rights: By submitting an entry to the contest, the 4-H member grants permission to Weber County 4-H and USU Extension the use and rights associated with the use of the photographic likeness in promotional publications and other media without compensation. Certain entries may be used for 4-H program and marketing uses.
8. Release: It is required that each participant have sufficient permission granted to both the artist(s) and Utah 4-H to publish and use as needed any recognizable locations or people filmed. Documentation should be retained by the participant and be available upon request from the 4-H Youth Development Program.
9. Entries should be submitted via **ZSuite** under **Pixelation Contest**.

Pixelation Judging Rubric

Name:		**Category**: Kit/ Original		Blue: 75-100pts	Red: 60-74pts	White: 0-59pts
Junior: 3rd-5th Grade	Intermediate: 6th-8th Grade	Senior: 9th-12th Grade				
Content	**Reflection Paragraph**	**Pattern**	**Creativity**	**Mastery of Medium**	**Complexity**	**Total**
Description	Summarizes the project and answers at least one question from each Computational Thinking category.	Final product follows a pattern created by youth or provided kit. Adjustments to kit are documented on pattern and reflection paragraph.	Design is original and reflected in the patterns provided with the entry.	Pixelated design is recognizable and pleasing.	Complexity of design is appropriate for age division.	
Points Possible	25 pts	25 pts	25 pts	15 pts	10 pts	100 pts
Points Awarded						
Judge's Comments						