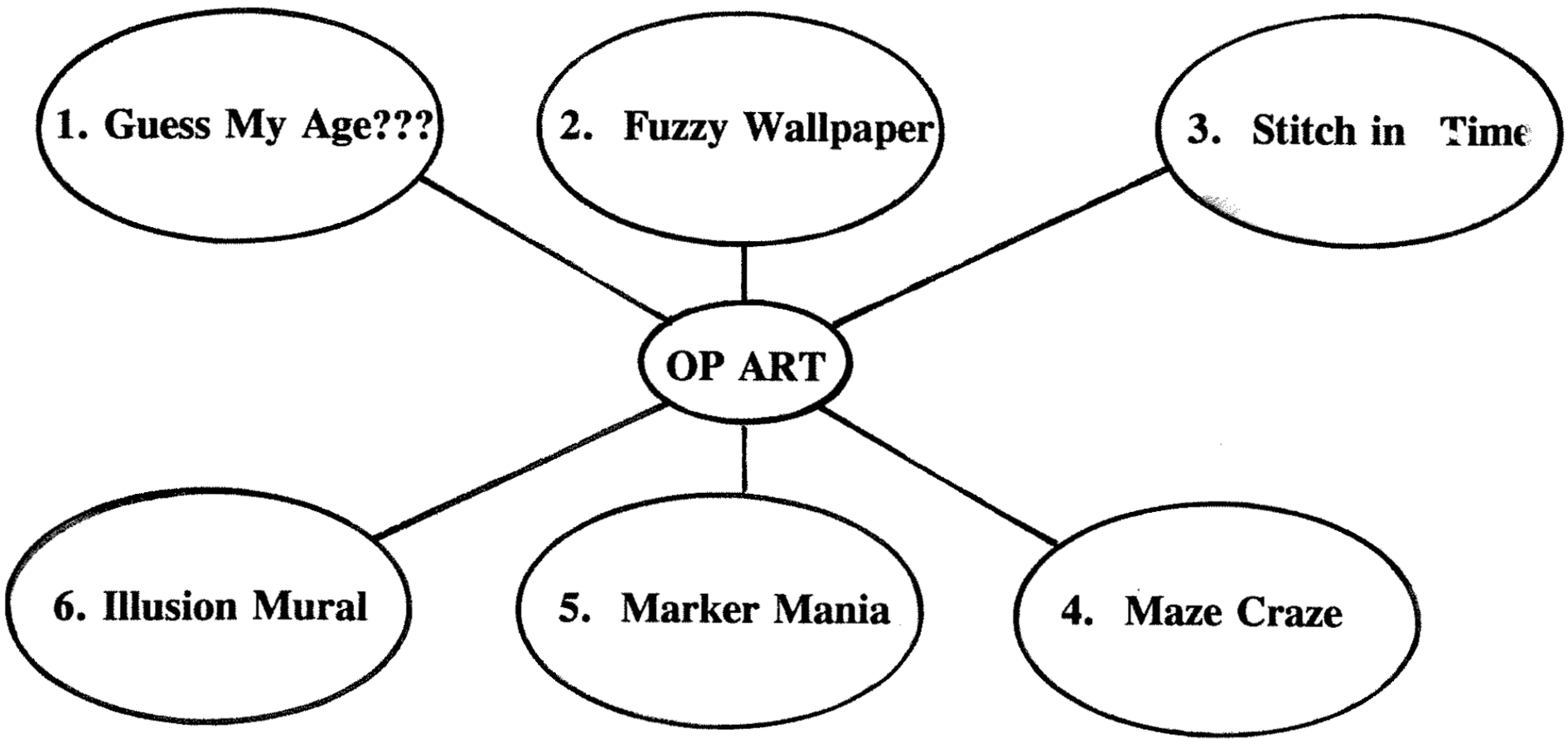
OP ART

UNIT OVERVIEW

Students marvel as they investigate the amazing world of optical illusions. Crazy mazes and eyecurdling geometrical designs place an emphasis on proportioning and critical thinking skills.

STUDENT ASSIGNMENTS



1. **Guess My Age???** - Students examine and reproduce the classic Old Woman/Young Woman optical illusion.

2. **Fuzzy Wallpaper** - Students recreate a portion of a nightmarish wallpaper design.

3. **Stitch in Time** - Students stitch one of two geometric designs onto black bristol board.

4. **Maze Craze** - Students try to solve the infamous Richard Robillard maze, then create a complicated, original maze.

5. **Marker Mania** - Students design and construct this simple two-colour illusion.

6. **Illusion Mural** - Students use the grid method to enlarge an M.C. Escher masterpiece to mural side.

ISBN: 978-1-55319-026-4

ASSIGNMENT #3 - STITCH IN TIME

Student Activities

- students use needle and thread to stitch one of two geometrical designs onto black bristol board.

Suggested Teaching Strategies

- begin by showing students a completed sample of the assignment.
- materials required include bristol board sheets, a supply of needles, various colours of thread (lighter colours of thread work best) scissors and masking tape.
- black bristol board should be precut into 6" x 6" squares (15 cm x 15 cm) using a paper cutter.
- after choosing patterns, students follow the detailed instruction sheet. (see the following page).
- students cut out the inside of the pattern and tape the template (which now has a hole in it) gently to the bristol board.
- using light pencil, students mark dots on the bristol board.
- carefully remove the template and number the dots being sure the numbers are light and on the outside of the dots so they can be erased later.
- thread about 1.5 meters of thread onto a needle and make knots at both ends. (use a light colour at the beginning)
- push the needle and thread through the first hole from the bottom and use tape to secure the knot onto the back of the bristol board.
- follow the stitching instructions, being careful not to tangle the thread.
- if thread has to be joined together, tie it so the knot is on the back of the pattern.

*** If needles are not available, paper clips can be fashioned into crude replacements. ***

CIRCLE TEMPLATE

1. **1st LAYER:** String around holes in following order, counter-clockwise

1-16	9-24	17-4	23-10
3-18	11-26	19-6	25-12
5-20	13-28	21-8	27-14
7-22	15-2		

2. **2nd LAYER:**

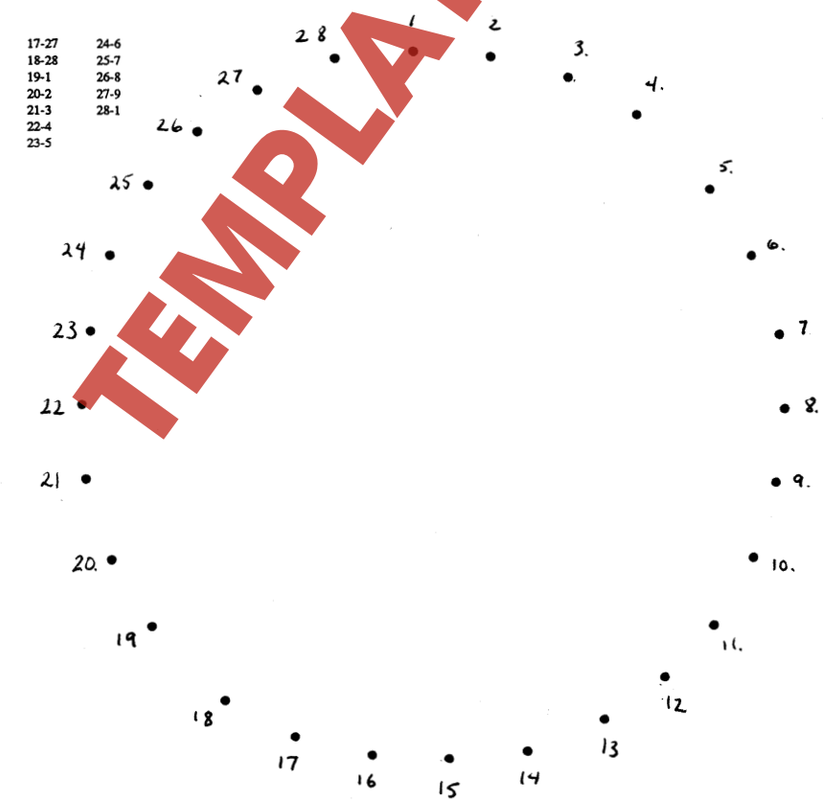
1-13	8-20	15-27	22-6
2-14	9-21	16-28	23-7
3-15	10-22	17-1	24-8
4-16	11-23	18-2	25-9
5-17	12-24	19-3	26-10
6-18	13-25	20-4	27-11
7-19	14-26	21-5	28-12

3. **3rd LAYER:**

1-12	8-19	15-26	22-5
2-13	9-20	16-27	23-6
3-14	10-21	17-28	24-7
4-15	11-22	18-1	25-8
5-16	12-23	19-2	26-9
6-17	13-24	20-3	27-10
7-18	14-25	21-4	28-11

4. **4th LAYER:**

1-11	9-19	17-27	24-6
2-12	10-20	18-28	25-7
3-13	11-21	19-1	26-8
4-14	12-22	20-2	27-9
5-15	13-23	21-3	28-1
6-16	14-24	22-4	
7-17	15-25	23-5	
8-18	16-26		



ASSIGNMENT #6 - ILLUSION MURAL

Student Activities

- Students, in groups, use the grid method to enlarge one of four M.C. Escher optical illusions.

Suggested Teaching Strategies

- Students may choose their own groups or groups can be chosen at random. (student names on popsicle sticks is a fair method)
- Each group selects a gridded copy of the drawing they intend to enlarge.
- Using 18" x 24" paper, students use metre sticks to prepare a 7.5 cm by 7.5 cm grid. Grid should be **lightly drawn in pencil** so it can later be erased.
- Paying careful attention to proportion and where lines intersect the grid, students **lightly** sketch outlines onto the 18" x 24" paper.
- After single squares are complete, students join their squares together and make the necessary alterations.
- Erase grid.
- Students then darken and shade in the outlines. (pencil, marker or paint could be used for filling in the outlines)

MAURITS ESCHER 1894 - 1982

Escher is known as the master of optical illusions. He was born in Arnhem in the Netherlands and began art by making lino (linoleum) prints in school. Many of Escher's drawings rely on geometry and mathematics for their inspiration. For example, the Moebius Strip which provides the basis for one of his works, is a famous concept developed by Ferdinand Moebius, a great mathematician. His other works such as water flowing uphill and birds into fish, are both designed to trick the eye.

OP ART

In this unit you will investigate the amazing world of optical illusions. Crazy mazes and eyecurdling geometrical designs place an emphasis on proportioning and critical thinking skills.

Marking will be based on:

1) Amount of effort and work done on assignments
2) Originality and creativity
3) Correctness and completeness of assignments

Each student begins with 100 marks. As assignments are handed in, marks will be deducted.

OP ART		STUDENT NAME _____	
ASSIGNMENT	**MARKS ASSIGNED**	**MARKS DEDUCTED**	**RUNNING TOTAL**
1. **Guess My Age???** Possible 10 marks			
2. **Fuzzy Wallpaper** Possible 15 marks			
3. **Stitch in Time** Possible 15 marks			
4. **Maze Craze** Possible 15 marks			
5. **Marker Mania** Possible 15 marks			
6. **Illusion Mural** Possible 30 marks			
OP ART		**TOTAL** _____ %	

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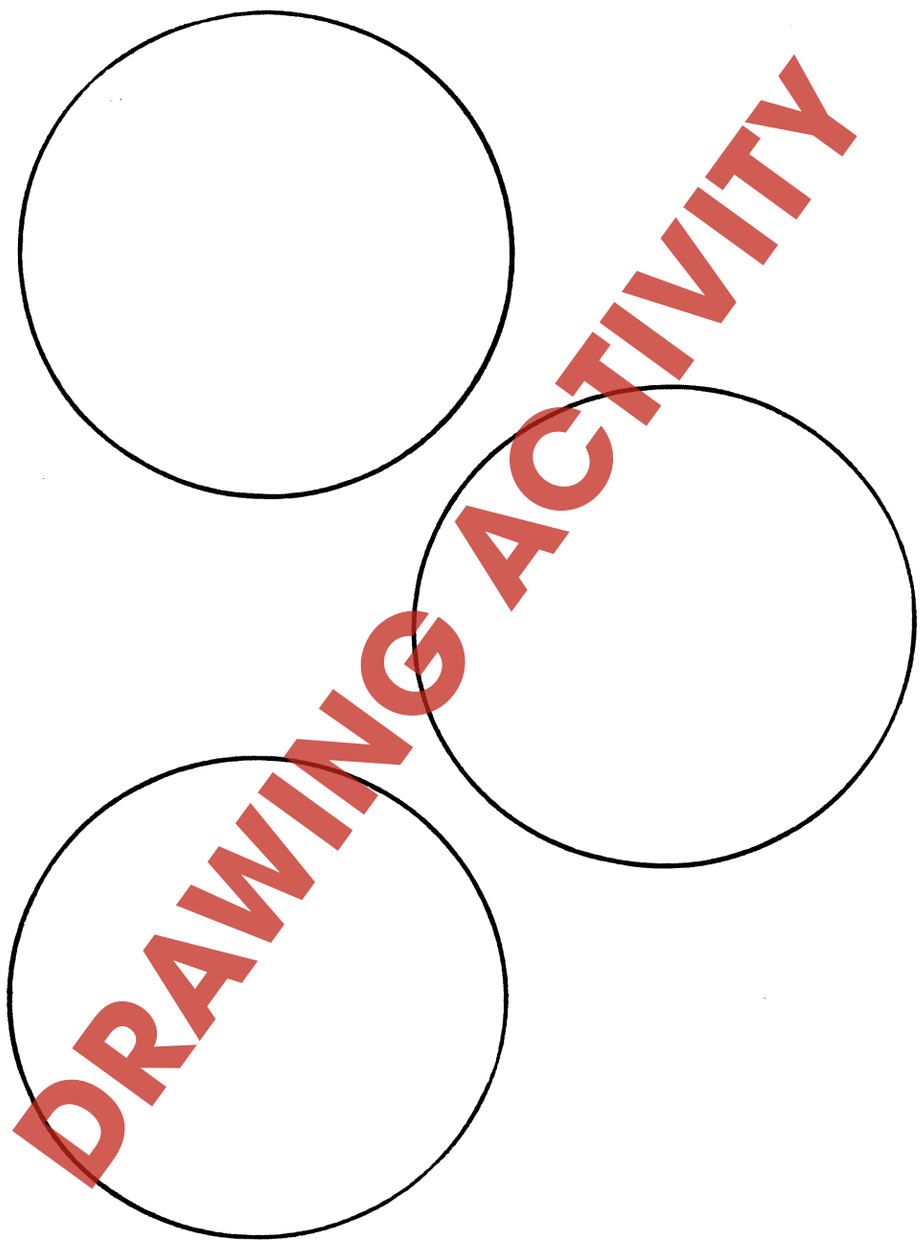

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