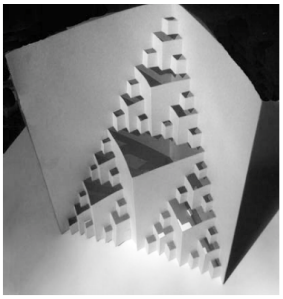


Name: _____

Fractal Cutout Cards

1. What is a fractal?

2. What are three types of fractal patterns?

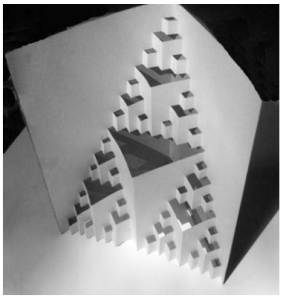
a) b) c)

3. Draw an example of each type of fractal pattern.

a) b) c)

4. Cutout card activity

Number of times you've cut your pattern	Number of folds you had to reverse this time	Math notation (fill in the blank)
0		2^0
1		$2^1 = 2 \times$ _____
2		$2^2 = 2 \times$ _____
3		$2^3 = 2 \times$ _____
4		$2^4 = 2 \times$ _____



Name: _____

Fractal Cutout Cards

Adaptations to different grades

- 2nd and up: measure lengths, estimate length of subsequent cuts
- 3rd and up: determine area, use division, determine attributes of shape cutting out
- 4th and up: measure angles, discuss types of triangles, fractions – bigger, smaller and addition, determine trends and predict subsequent steps
- 5th and up: graph number of patterns and numbers of triangles for each iteration – what type of line do data create?; measure surface area, area and volume
- 6th and up: ratios and proportional relationships, do statistics on measurements – discuss samples and spread; graph distribution and standard deviation

Measure, count, bigger smaller, fractions – how much bigger, measure angles, types of triangles or shapes, count the steps
Instruction video online!
Where have you seen fractal patterns in your environment?