

Teacher / Team Name: 8th grade

Topic: Ups & Downs

Days: 0

Subject(s):

Grade(s):

Key Learning: **Patterns of change allow us to identify different functions.**

Unit Essential Question(s): **How do patterns of change determine the type of function?**

<p>Concept: Patterns of Change</p> <ul style="list-style-type: none"> *Intervals of growth *trends in graphs *various rates of change *communicating various types of change mathematically 	<p>Concept: Linear Change</p> <ul style="list-style-type: none"> *Take a situation involving body temperature over time and creating a table/graph *Connecting representations to the real-world *Identify a strategy for finding a pattern of change *Transferring a graph/table into a Next-Current formula *Taking a next-current formula and turning it into a direct formula *graphing two lines and finding the point of intersection 	<p>Concept: Nonlinear Change</p> <ul style="list-style-type: none"> *Examining a leaf's area and height in order to create a table of those values. *Finding first and second difference from a table's values *Continue making tables and graphs for quadratic changes *Determine growth factor *Creating next-current formula, which leads to discovery of exponential change *Analyze graphs to find repeating patterns *Determining where cycles start/end and finding the graph's period *Graphing and making tables in order to see exponential decay *Creating next-current formula for exponential decay
<p>Lesson Essential Question(s): How do I represent patterns of change mathematically? (A)</p>	<p>Lesson Essential Question(s): What makes a growth pattern linear? (A)</p>	<p>Lesson Essential Question(s): What makes a growth pattern non-linear? (A)</p>
<p>Vocabulary: line graph , linear growth , median (preview) , mean, horizontal axis , vertical axis , rate of change</p>	<p>Vocabulary: starting point (with an emphasis on it not having to be the y-intercept) , point of intersection , next-current formula , direct formula</p>	<p>Vocabulary: squared number , area, first difference , second difference , formula, quadratic growth , pie, radius, growth factor , exponential growth , periodic graph , period, cycle, exponential decay , negative growth , half-life, milligram</p>

Teacher / Team Name: 8th grade

Topic: Ups & Downs

Days: 0

Subject(s):

Grade(s):

Additional Information:

Attached Document(s):

Teacher / Team Name: 8th grade

Vocab Report for Topic: Ups & Downs

Subject(s):

Days: 0

Grade(s):

Concept: Patterns of Change

line graph

-

linear growth

-

median (preview)

-

mean -

horizontal axis

-

vertical axis

-

rate of change

-

Concept: Linear Change

starting point (with an emphasis on it not having to be the y-intercept)

-

point of intersection

-

next-current formula

-

direct formula

-

Teacher / Team Name: 8th grade

Vocab Report for Topic: Ups & Downs

Subject(s):

Days: 0

Grade(s):

Concept: Nonlinear Change

squared number

-

area -

first difference

-

second difference

-

formula -

quadratic growth

-

pie -

radius -

growth factor

-

exponential growth

-

periodic graph

-

period -

cycle -

exponential decay

-

negative growth

-

half-life -

milligram -