Lesson Printables

Be a rockstar and only print what you need!

Planners: 2-3

Bananaza Cards
Sunlight: 4
Twilight: 5
Midnight: 6

Extras
Rules: 7
Place Value Charts: 8

**Printing in the US? Scale to 'fit to printable area' in order to get the best print.*

LESSON 1: Place Value - Exploring place value

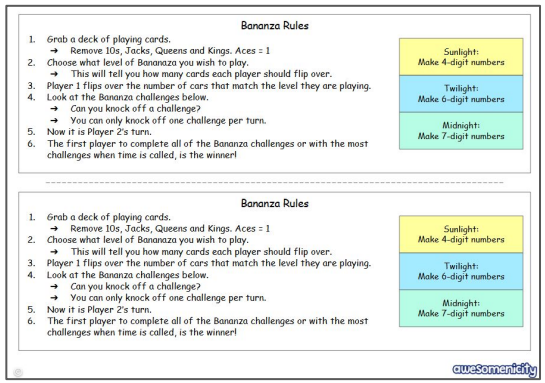
Starter	Main Activity and Input: Matching numbers to a place value criteria.	Plenary
Hidden Questions: If the answer is 28, what could the question be? **To support:** 1. Encourage students to start with addition or subtraction. What two numbers could be added together to get 28? What two numbers could be subtracted to get 28? **To challenge:** 1. Can students use all 4 operations? 2. Can students use more than 1 operation in the same number sentence?	**Input:** 1. Slide 6 asks students what they already know about the term place value or what they know about our number system. Give students time to discuss and share ideas on the board. This could be used as a pre-assessment to see what students already know. E.g. Do they use the name of different place value columns? 2. Slide 7 shows 4 different types of place value blocks. If you have these in class, give them out to students, so they can inquire into them. Ask students what they would call each block. Slide 8 names the block and asks students if there are numbers beyond the thousands. What could they be called? *Note, we are using the term 'ones'. Your curriculum might use the term units instead of ones. We will be using the term ones throughout our lessons.* 3. Slide 9 reveals the ten thousands, hundred thousands and the millions place value columns. Ask students why there aren't place value blocks to represent these place value columns. Elicit from students that these blocks would be significantly bigger. 4. Slide 10 asks students to write out the value of each place value column. E.g. 1, 10, 100, etc. We have done this vertically so that students can see how the numbers increase with each place value spot. Slide 11 explains that each place value column is 10 times bigger than the previous spot. You could use place value blocks to model that 1 tens block is made out of 10 ones blocks and 1 hundreds block is made out of 10 tens blocks etc. 5. Slides 12 to 16 model the main activity: playing Place Value Bananza. - Players take turns rolling dice or flipping over cards to make a 4-digit number. (The size of the number changes with different learning zones.) - Look at the bananza scorecard. Does the number match any of the number challenges? - Write down your number if it matches a challenge. (You can only fill in one number challenge per round.) - The first player to fill in their scorecard or who has the most bananza numbers is the winner. **Activity: Play Place Value Bananza.** 1. Print the rules (optional) and scorecards for each player. 2. Provide students with dice or cards. Take out all Jacks, Queens and Kings. Aces = 1. **To support:** 1. Provide students with a place value mat found in the printables in order to have a visual aid. 2. Sunlight Zone uses 5-digit numbers. **To challenge:** 1. Encourage students to explain why their number meets each criteria. 2. Students could make the game tactical by allowing players to move their cards around to construct their own numbers with the digits they have.	**Bananza:** What could be the monkey's bananza number? **Check for understanding:** 1. Can students identify a 4-digit number that meets the number challenge? E.g. 3,453, 1,473, etc.

Things that might be useful for this lesson:

- Individual whiteboards:
  - ➔ Help students to record their thinking and share ideas with others.
- Place value blocks:
  - ➔ Help model the names of place value columns/spots.
  - ➔ Can be used to create numbers.
  - ➔ Help to show sharing between two groups in order to identify odd and even numbers.
- Playing cards:
  - ➔ Helps to add kinesthetic movement .
  - ➔ Will be used to make numbers to play the game .

Peek at the Printables:

Game Rules



Bananza Rules

1. Grab a deck of playing cards.
   - ➔ Remove 10s, Jacks, Queens and Kings. Aces = 1
2. Choose what level of Bananaza you wish to play.
   - ➔ This will tell you how many cards each player should flip over.
3. Player 1 flips over the number of cars that match the level they are playing.
4. Look at the Bananza challenges below.
   - ➔ Can you knock off a challenge?
   - ➔ You can only knock off one challenge per turn.
5. Now it is Player 2's turn.
6. The first player to complete all of the Bananza challenges or with the most challenges when time is called, is the winner!

Sunlight: Make 4-digit numbers

Twilight: Make 6-digit numbers

Midnight: Make 7-digit numbers

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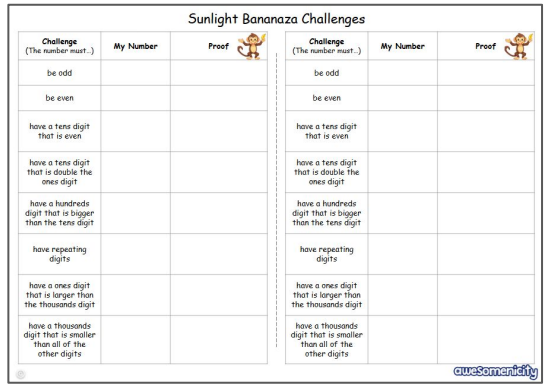
Recording Log



Sunlight Bananza Challenges

Challenge (The number must...)	My Number	Proof
be odd		
be even		
have a tens digit that is even		
have a tens digit that is double the ones digit		
have a hundreds digit that is bigger than the tens digit		
have repeating digits		
have a ones digit that is larger than the thousands digit		
have a thousands digit that is smaller than all of the other digits		

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Greener Alternatives:

- ➔ Print just a few copies of the rules and post them up somewhere in your classroom. Students could refer to them when and if they need to.
- ➔ Laminate the recording logs found in the printables so that they can be used more than once.

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Sunlight Bananaza Challenges

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have repeating digits		
have a ones digit that is larger than the ten thousands digit		
have a thousands digit that is smaller than all of the other digits		

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have repeating digits		
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have a thousands digit that is smaller than all of the other digits		

Twilight Bananaza Challenges

Challenge (The number must…)	**My Number**	**Proof** 
be odd		
be even		
have a tens digit that is double the thousands digit		
have an even number in the hundreds spot		
have an odd number in the tens spot		
have repeating digits		
have a ones digit that is larger than the thousands digit		
have tens and hundreds digits that add up to 6		

Challenge (The number must…)	**My Number**	**Proof** 
be odd		
be even		
have a tens digit that is double the thousands digit		
have an even number in the hundreds spot		
have an odd number in the tens spot		
have repeating digits		
have a ones digit that is larger than the thousands digit		
have tens and hundreds digits that add up to 6		

Midnight Bananaza Challenges

Challenge (The number must…)	**My Number**	**Proof** 
be odd		
be even		
have a tens digit that is double the millions digit		
have an even number in the thousands spot and an odd number in the hundred thousands spot		
have a prime number in the tens spot		
have a square number in the ten thousands place value column		
have digits in the ten thousands and tens that add up to 8		
have a ones digit that is smaller than all of the other digits		

Challenge (The number must…)	**My Number**	**Proof** 
be odd		
be even		
have a tens digit that is double the millions digit		
have an even number in the thousands spot and an odd number in the hundred thousands spot		
have a prime number in the tens spot		
have a square number in the ten thousands place value column		
have digits in the ten thousands and tens that add up to 8		
have a ones digit that is smaller than all of the other digits		

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Place Value Mats

M	H Th	T Th	Th	H	T	O

M	H Th	T Th	Th	H	T	O

M	H Th	T Th	Th	H	T	O