Lesson Printables

Be a rockstar and only print what you need!

Planners: 2-3

Piggy Banks
Sunlight: 4
Twilight: 5
Midnight: 6

Extras
Optional Recording Log: 7
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**Printing in the US? Scale to 'fit to printable area' in order to get the best print.*

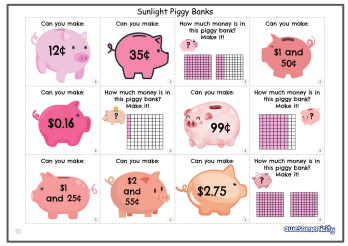
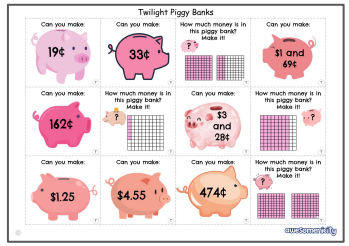
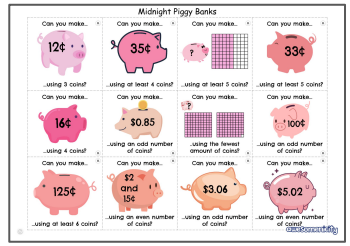
LESSON 1: Money - Introduction to money (coins) in decimal form

Starter	Main Activity and Input: Identifying money in decimal form and creating different coin combinations .	Plenary
River Crossing: The numbers 1 to 9 want to cross the river in rowing boats. What are some possible multi-digit numbers that meet each rowing boat criteria? **To support:** 1. Review how to identify multiples of 2, 5 and 3. **To challenge:** 1. What are the 3 biggest numbers students can make that meet the criteria? The 3 smallest numbers?	**Input:** 1. Slide 6 shows a piggy bank. What do students already know about their money system? Discuss ideas a class. E.g. We use dollars and cents. Dollars are worth more than cents. We have notes and coins that have different values. If you have money manipulatives, you could get them out for students to play and explore with. 2. Slide 7 shows the coins used in the US. *Note, we have used coins that are in regular circulation. There is also a half dollar coin that you could discuss if you wish.* What value do the different coins have? What are their names? (You could also discuss the people who are on each coin.) How are some of the coins connected? Students could write their ideas on whiteboards and then share as a class. 3. Slide 8 explains that 1 dollar is equivalent to 100 pennies. Using this information, what money amount is being shown using the 100s square? Students could use coin manipulatives to show their ideas. Slide 9 shows that if the whole square represents $1, then it also represents 100¢. If 25 boxes are coloured in, they represent 25¢. How would students write this in decimal form? This is shown on slide 10, which also asks students what coins could be used to make 25¢. Slide 11 shows two possible solutions. Which one is the most efficient way to make 25¢? At this point, you could discuss the fact that we use the term quarter because if a whole is broken into 4 equal parts, we call them quarters. If 100 is divided into 4 equal parts, each quarter totals 25. 4. Slides 12 to 15 model the main activity. There are piggy banks that have 100 squares or different amounts of money on them. How much money is being represented and what coins could students use to make that amount? Students could use coin manipulatives or draw money circles to show how they could make a particular amount of money. You could ask students to explore what combination of coins is the most efficient way to make the money amount. Note, slide 15 models the Midnight activity which provides a money amount and the number of coins used to make that amount. Students will need to be creative in how they make the piggy bank amount. **Activity: Use coin combinations to match the totals shown on different piggy banks.** 1. Print and cut out piggy banks for each learning zone. These could be placed in piles in your classroom. Students could work in pairs and take one piggy bank at a time, make the amount and then return the piggy bank to a shared pile. Students could use coin manipulatives or draw money circles. Students do not need to complete all of the challenges. **To support:** 1. Sunlight Zone piggy banks are $3 or less. 2. Print the recording logs to help students organise their thinking. **To challenge:** 1. Encourage students to write their piggy bank amount in decimal form and in dollar and cent form. 2. Is there more than 1 way to make the piggy bank amount? Prove it! 3. Midnight Zone includes specific coin amounts, so students have to think creatively about how to make a particular piggy bank amount.	**Mystery Money:** If 5 coins (2 of the same, 3 unique) are hidden in the hat, what could the amount of money be? **Check for understanding:** 1. Can students identify 5 coins that would work and calculate how much money they are worth?

Things that might be useful for this lesson:

- Individual whiteboards:
  - ➔ Help students to record their thinking and share ideas with others.
- Place value blocks:
  - ➔ For students who need scaffolding for splitting amounts.
  - ➔ The hundreds square represents 100p or £1.
- Coin manipulatives:
  - ➔ Can be used to explore making specific money amounts.

Peek at the Printables:

Sunlight Zone	Twilight Zone	Midnight Zone
		

Greener Alternatives:

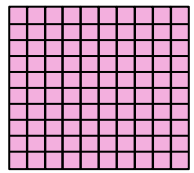
➔ Rather than printing the cards, you could place whiteboards in stations around the class with different money amounts written on them. Students can move between the stations, showing different ways they could make the desired amount.

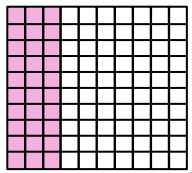
Sunlight Piggy Banks

Can you make:

Can you make:

How much money is in this piggy bank? Make it!

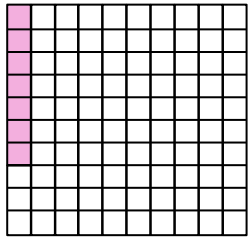




Can you make:

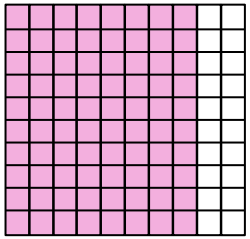
Can you make:

How much money is in this piggy bank? Make it!



Can you make:

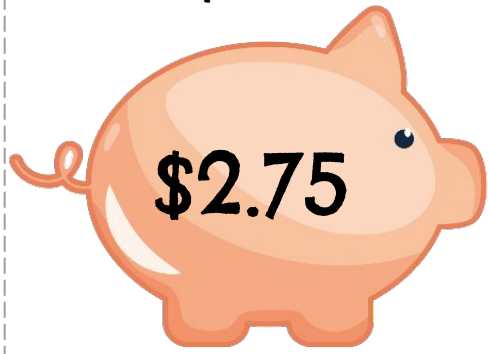
How much money is in this piggy bank? Make it!



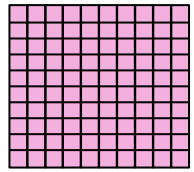
Can you make:

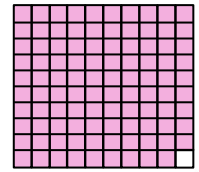
Can you make:

Can you make:



How much money is in this piggy bank? Make it!



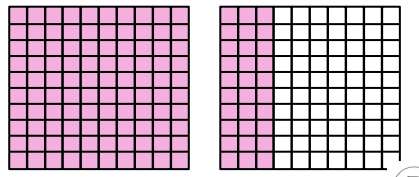


Twilight Piggy Banks

Can you make:

Can you make:

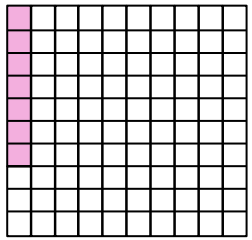
How much money is in this piggy bank? Make it!



Can you make:

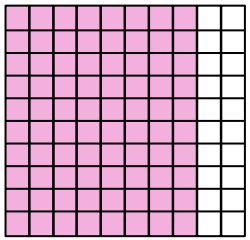
Can you make:

How much money is in this piggy bank? Make it!



Can you make:

How much money is in this piggy bank? Make it!

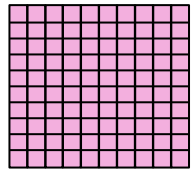


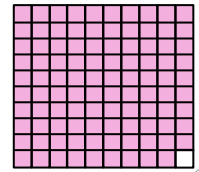
Can you make:

Can you make:

Can you make:

How much money is in this piggy bank? Make it!





Midnight Piggy Banks

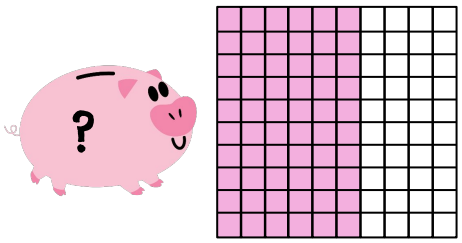
Can you make...

...using 3 coins?

Can you make...

...using at least 4 coins?

Can you make...



...using at least 5 coins?

Can you make...

...using at least 5 coins?

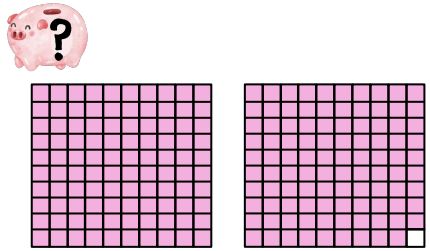
Can you make...

...using 4 coins?

Can you make...

...using an odd number of coins?

Can you make...



..using the fewest amount of coins?

Can you make...

...using an odd number of coins?

Can you make...

...using at least 6 coins?

Can you make...

...using an even number of coins?

Can you make...

...using an odd number of coins?

Can you make...

...using an even number of coins?

Recording Log

 Piggy Bank Amount	How I made it:

Small Recording Logs

Piggy Bank Amount	How I made it:

Piggy Bank Amount	How I made it:

Midnight Answers

Answers will vary. Below are possible solutions to Midnight piggy banks.

12¢ $0.12	5¢ + 5¢ + 2¢ or 10¢ + 1¢ + 1¢
35¢ $0.35	10¢ + 10¢ + 10¢ + 5¢ or 25¢ + 5¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢
60¢ $0.60	25¢ + 10¢ + 10¢ + 10¢ + 5¢ or 10¢ + 10¢ + 10¢ + 10¢ + 10¢ + 10¢
33¢ $0.33	25¢ + 5¢ + 1¢ + 1¢ + 1¢ or 10¢ + 10¢ + 10¢ + 2¢ + 1¢
16¢ $0.16	5¢ + 5¢ + 5¢ + 1¢ (only solution)
85¢ $0.85	25¢ + 25¢ + 25¢ + 5¢ + 5¢ or (8 x 10¢) + 5¢

$1.99	$1 + 25¢ + 25¢ + 25¢ + 20¢ + 2¢ + 2¢
$1	25¢ + 25¢ + 25¢ + 10¢ + 5¢ + 5¢ + 5¢ or 25¢ + 25¢ + 10¢ + 10¢ + 10¢ + 10¢ + 10¢
$1 and 25¢ $1.25	$1 + 10¢ + 5¢ + 5¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ or 25¢ + 25¢ + 25¢ + 25¢ + 10¢ + 10¢ + 5¢
$2 and 15¢ $2.15	$1 + $1 + 10¢ + 5¢ or $1 + 25¢ + 25¢ + 25¢ + 25¢ + 5¢ + 5¢ + 5¢
$3 and 6¢ $3.06	$1 + $1 + $1 + 5¢ + 1¢ or $1 + $1 + 25¢ + 25¢ + 25¢ + 10¢ + 5¢ + 5¢ + 5¢ + 5¢ + 1¢
$5 and 2¢ $5.02	$1 + $1 + $1 + $1 + 25¢ + 25¢ + 25¢ + 25¢ + 1¢ + 1¢ or (25¢ x 20) + 1¢ + 1¢