





Name: _____ Date: _____

Help a park ranger design a walkway from the Visitor Center to the Picnic Area that allows visitors to see lots of animals.

The ranger has 4 wooden planks. The planks need supports at each end to make the walkway stable. The less solid the ground, the longer it takes to build the supports.

The table shows how long it takes the ranger to set up the planks on the different types of ground.

End 1	End 2	Days of work
Rock	Rock	1
Rock	Sand	2
Rock	Swamp 	3
Sand	Sand	3
Sand	Swamp 	4
Swamp 	Swamp 	5

Directions: Design a walkway by cutting out the planks on the next page and taping them on the map.

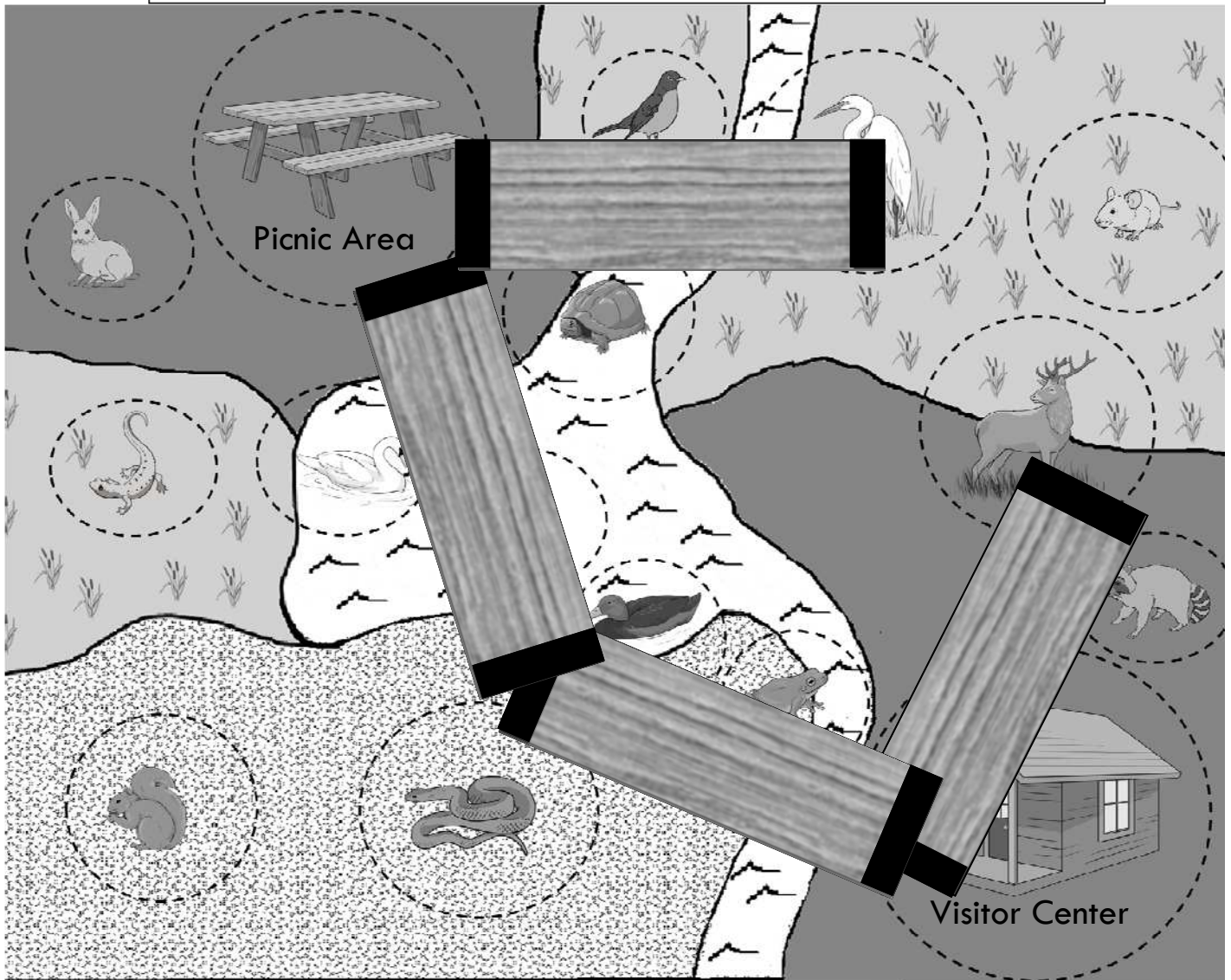
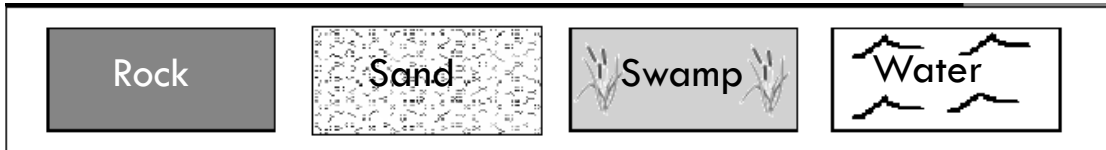
Follow these rules:

- *Each plank needs to touch another plank*
- *All of the black part of the plank must be in one type of ground, because this is where the supports will go.*
- *You get 2 points for every animal the visitors can see. A plank must cross the circle around an animal for visitors to see it.*
- *You lose 1 point for every hour the ranger needs to work.*
- *One plank must touch the circle marked "Visitor Center".*
- *One plank must touch the circle marked "Picnic Area".*

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Answer Key

Example:



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1. Fill in the table below using your finished design:

Plank	Type of Ground		Days of Work
	End 1	End 2	
1	Rocky	Rocky	1
2	Rocky	Sandy	2
3	Sandy	Rocky	2
4	Rocky	Swampy	3
Total			<u>8</u> days

2. Count how many animal circles your walkway crosses: 10 animals

3. Figure out your total score by filling in the table below.

	Answer
<p>(A) Animal Score</p> <p>Multiply the total number of animals by 2.</p>	<p>Number of animals X 2 = <u>20</u></p>
<p>(B) Number of Hours Worked</p> <p>How many total hours did the ranger work?</p>	<p>Number of days = <u>8</u> days</p>
<p>(C) Total Score</p> <p>Subtract your answer for B from your answer for A.</p>	<p>(A) <u>20</u> - (B) <u>8</u> = <u>12</u> Points</p>

4. You can use the scale below to see how you did!

0-8 points: Try again!	9-11 points: Good job!	12+ points: Amazing!
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