## GPS LAB

## Key to decode your clues:

| a | b | c | d | e | f | g | h | i | j | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |

Group name: $\qquad$


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Bats | You are at "start" | start |
| Question | To calculate your next waypoint. | J432 |
| To put things into groups <br> is to do what? | $400+30+2=$ | Answer: Classify |
| Answer: | Is the number sentence above written in standard form or <br> expanded form? <br> Waypoint is: J |  |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Bats | You are at "J432" | J432 |
| Question <br> What tool is shown in the picture below? <br> Answer: $\qquad$ | To calculate your next waypoint: <br> The first letter of the answer is $\qquad$ . (code value: ) $\qquad$ $\qquad$ (code value) $\times 10=$ $\qquad$ $\qquad$ (previous number sentence product) $+92=$ $\qquad$ <br> Waypoint is: J $\qquad$ | J222 <br> Answer: Microscope |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Bats | You are at "J222" | J222 |
| Question | To find your next waypoint | J021 |
| Athat an organism has in an <br> ecosystem.Use the code to find the value of the answer. <br> Then subtract 18. | Answer: niche |  |
|  | Waypoint is: J0 |  |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Bats | You are at "J021" | J021 |
| Question <br> Some cave animals are $\qquad$ because they do not need eyesight to survive. | The last letter in answer: $\qquad$ (code value _) $\qquad$ <br> Value $\times 100$ : $\qquad$ $x 100=$ $\qquad$ <br> Product $-68=$ $\qquad$ <br> Waypoint is: J | J332 <br> Answer: Blind |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Bats | You are at "J332" | J332 |
| Question <br> You are a biologist. A biologist studies $\qquad$ science. | Final Clue!!! <br> Use the code to find the numeric value of the answer. <br> Add 5. $\qquad$ <br> Add 100. $\qquad$ <br> Waypoint is: J $\qquad$ | J137 <br> Answer: Life |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Cave Snails | You are at "start" | start |
| Question <br> What tool is shown in the <br> picture below? | To calculate your next waypoint. | Three hundred one |
|  | Is the number sentence above written in word form or <br> expanded form? | Answer: Magnifying glass |
| Answer: | Waypoint is: J |  |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Snails | You are at "J301" | J301 |
| Question <br> A place in which an organism lives? <br> Answer: $\qquad$ | To calculate your next waypoint: <br> The first letter in answer: $\qquad$ (code value $\qquad$ ) $\qquad$ $+548=$ $\qquad$ <br> Waypoint is: J $\qquad$ | J556 <br> Answer: Habitat |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Snails | You are at "J556" | J556 |
| Question Inherited Behaviors that help animals survive. <br> A. Mutation <br> B. Structural Adaptations <br> C. Behavioral Adaptations | To find your next waypoint: <br> Letter choice $\times 2$. ( $\qquad$ $\times 2=$ $\qquad$ ) <br> Multiply by 100 $\qquad$ $\times 100=$ $\qquad$ <br> Add 32. ( $\qquad$ $+32=$ $\qquad$ <br> Waypoint is: J $\qquad$ | J632 <br> Answer: C |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Snails | You are at "J632" | J632 |
| Question <br> Bats relay on their sense of $\qquad$ to help them find food. | To find your next waypoint: <br> The first letter in answer: $\qquad$ (code value _) $\qquad$ <br> Value x 7 : $\qquad$ $\times 7=$ $\qquad$ <br> Waypoint is: J0 $\qquad$ | J056 <br> Answer: Hearing |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Snails | You are at "J056" | J056 |
| Question <br> You are a biologist. A biologist studies $\qquad$ science. | Final Clue!!! <br> Use the code to find the numeric value of the answer. <br> Add 5. $\qquad$ <br> Add 100. $\qquad$ <br> Waypoint is: J $\qquad$ | J137 <br> Answer: Life |



| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Millipedes | You are at "JO21" | J021 |
| Question | To calculate your next waypoint: | J007 |
| A species that has no <br> members of its kind alive <br> is known as being | $(10 \times 8)-73=\ldots$ | Answer: extinct |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Millipedes | You are at "J007" | J007 |
| Question Changed body parts that help the organism survive in its ecosystem. <br> A. Mutation <br> B. Structural Adaptations <br> C. Behavioral Adaptations | To find your next waypoint: <br> Letter choice x 4 . ( $\qquad$ $\times 4=$ ) $\qquad$ <br> Multiply by 100 $\qquad$ $\times 100=$ $\qquad$ _) <br> Add 45. ( $\qquad$ $+45=$ $\qquad$ ) <br> Waypoint is: J $\qquad$ | $\mathrm{J} 845$ <br> Answer: B |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Millipedes | You are at "845" | J845 |
| Question <br> Echolocation helps cave <br> animals survive by using <br> waves.To find your next waypoint: <br> Use the code to find the numeric value of the answer. <br>  <br> Subtract 25. | J048 <br> Whswer: Sound |  |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Millipedes | You are at "J048" | J048 |
| Question | Final Clue!!! <br> Use the code to find the numeric value of the answer. | J137 |
| You are a biologist. A <br> biologist studies ___ <br> science. | Add 5. <br> Add 100.__ <br> Waypoint is: J | Answer: Life |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Salamanders | You are at "start" | start |
| Question <br> The blind salamander is a <br> vertebrate or <br> invertebrate? | To calculate your next waypoint. | J845 |
| Answer: | $800+40+5=$ <br> Is the number sentence above written in standard form or <br> expanded form? <br> Waypoint is: J | Answer: vertebrate |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Salamanders | You are at "J845" | J845 |
| Question <br> The highest or most general group of organisms is the | To calculate your next waypoint: <br> The first letter in answer: $\qquad$ (code value $\qquad$ _) <br> Multiply by 7: ( $\qquad$ $\times 7=$ $\qquad$ ) <br> Subtract 5. ( $\qquad$ - $5=$ $\qquad$ <br> Waypoint is: J $\qquad$ | J072 <br> Answer: kingdom |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Salamanders | You are at "J072" | J072 |
| Question <br> The tool below measures what type of measurement. <br> A. Weight Measurement <br> B. Linear Measurement <br> C. Capacity Measurement | To find your next waypoint: <br> Letter choice x 4. ( $\qquad$ $\times 4=$ $\qquad$ ) <br> Subtract 1. $\qquad$ <br> Waypoint is: JOO $\qquad$ | J007 <br> Answer: B |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Salamanders | You are at "J007" | J007 |
| Question <br> A troglobite can only survive in a $\qquad$ environment. | To find your next waypoint: <br> Use the code to find the numeric value of the answer. <br> Multiply by 10 . ( $\qquad$ $x 10=$ $\qquad$ ) <br> Add 39. $\qquad$ $+39=$ $\qquad$ ) <br> Waypoint is: J $\qquad$ | J349 <br> Answer: Cave |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Salamanders | You are at "J349" | J349 |
| Question | Final Clue!!! <br> Use the code to find the numeric value of the answer. <br> You are a biologist. A <br> biologist studies __n <br> science. | Add 5. <br> Add 100.__ <br> Waypoint is: J_ |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Fish | You are at "start" | start |
| Question A hollow place in the ground where drainage collects? <br> Answer: | To calculate your next waypoint. <br> The first letter in answer: $\qquad$ (code value ) $\qquad$ <br> Add $37 .($ $\qquad$ $+37=$ $\qquad$ <br> Waypoint is: J 0 $\qquad$ | J056 <br> Answer: sinkhole |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Fish | You are at "J056" | J056 |
| Question <br> The tool shown below is known as a | To calculate your next waypoint: <br> The first letter in answer: $\qquad$ (code value $\qquad$ ) <br> Multiply by 24: ( $\qquad$ $\times 24=$ ) $\qquad$ <br> Waypoint is: JO | J048 <br> Answer: beaker. |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Cave Fish | You are at "JO48" | J048 |
| Question <br> A cave fish is a vertebrate <br> or invertebrate? | To find your next waypoint: | J222 |
|  | Is the number sentence above written in word form or <br> expanded form? | Answer: vertebrate |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Fish | You are at "J222" | J222 |
| Question | To find your next waypoint: Use the code to find the numeric value of the answer. | J432 <br> Answer: YES |
| Are grasslands a biome? <br> YES or No | Multiply by 10 . ( $\qquad$ $x 10=$ $\qquad$ ) <br> Subtract 58. ( $\qquad$ $+58=$ $\qquad$ <br> Waypoint is: J |  |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Fish | You are at "J432" | J432 |
| Question <br> You are a biologist. A biologist studies $\qquad$ science. | Final Clue!!! <br> Use the code to find the numeric value of the answer. <br> Add 5. $\qquad$ <br> Add 100. $\qquad$ <br> Waypoint is: J $\qquad$ | J137 <br> Answer: Life |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Cave Cricket | You are at "start" | start |
| Question | To calculate your next waypoint. | J632 |
| An animal that hunts other <br> animals for food. | Six hundred thirty two <br> Is the number sentence above written in word form or <br> expanded form? | Answer: predator |
| Answer: | Waypoint is: J_ |  |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Cricket | You are at "J632 | J632 |
| Question <br> The tool shown below is known as a | To calculate your next waypoint: <br> The first letter in answer: $\qquad$ (code value ) $\qquad$ <br> Add 25: ( $\qquad$ $+25=$ $\qquad$ <br> Add 800. ( $\qquad$ $+800=$ $\qquad$ <br> Waypoint is: J $\qquad$ | J845 <br> Answer: thermometer |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Cricket | You are at "J845" | J845 |
| Question A cave cricket is a vertebrate or invertebrate? | To find your next waypoint: <br> The last letter in answer: $\qquad$ (code value $\qquad$ <br> Add 300: ( $\qquad$ $+300=$ $\qquad$ _) <br> Waypoint is: J $\qquad$ | J305 <br> Answer: invertebrate |


| Name of Group | Waypoint Name | Instructor use only |
| :---: | :---: | :---: |
| Cave Cricket | You are at "J305" | J305 |
| Question Which of the following would be an example of a cave adaptation? <br> A.Large, bright spots <br> B. Lack of eye sight <br> C.Large eyes | To find your next waypoint: <br> Letter choice multiplied by 2. ( $\qquad$ $\times 2=$ ) $\qquad$ <br> Multiply by 100. $\qquad$ $\times 100=$ $\qquad$ ) <br> Add 100. ( $\qquad$ $+100=$ $\qquad$ <br> Add 56. ( $\qquad$ $+56=$ $\qquad$ <br> Waypoint is: J $\qquad$ | J556 <br> Answer: B |


| Name of Group | Waypoint Name | Instructor use only |
| :--- | :--- | :--- |
| Cave Cricket | You are at "J556" | J556 |
| Question | Final Clue!!! <br> Use the code to find the numeric value of the answer. | J137 |
| You are a biologist. A <br> biologist studies _-_ <br> science. | Add 5. <br> Add 100. <br> Waypoint is: J | Answer: Life |

## Word Bank:

- Beaker
- Blind
- Cave
- Classy
- Extinct
- Habitat
- Hearing
- Invertebrate
- Kingdom
- Life
- Magnifying Glass
- Microscope
- Niche
- Predator
- Sinkhole
- Sound
- Thermometer
- Vertebrate
- Weight

