

PIRLS
2016



PROGRESS IN INTERNATIONAL READING LITERACY STUDY

Reader



TIMSS & PIRLS
International Study Center
Lynch School of Education, Boston College

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PIRLS 2016 released items:

This document shows two passages of text and related items (or questions). They are real items that were administered to Fourth class pupils who took part in PIRLS in 2016.

Each passage and set of related items is shown in the format as seen by Irish pupils. As well as the items, the correct answer is shown, and the percentages of pupils who answered the item correctly in Ireland and at the international average¹.

Both passages shown were in the PIRLS Reader. The Reader contains only texts, and is accompanied by a separate answer booklet. In contrast, most texts were presented with accompanying questions as part of a test booklet.

Macy and the Red Hen is an example of a Literary text while **The Green Sea Turtle's Journey** is an example of an Informational text.

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¹ In a small number of cases, the international average percent correct has been alternately rounded up or down (so that, for example, 72.5% becomes 73% in one instance and 72% in the next), because more detailed information was not available at the time of writing.

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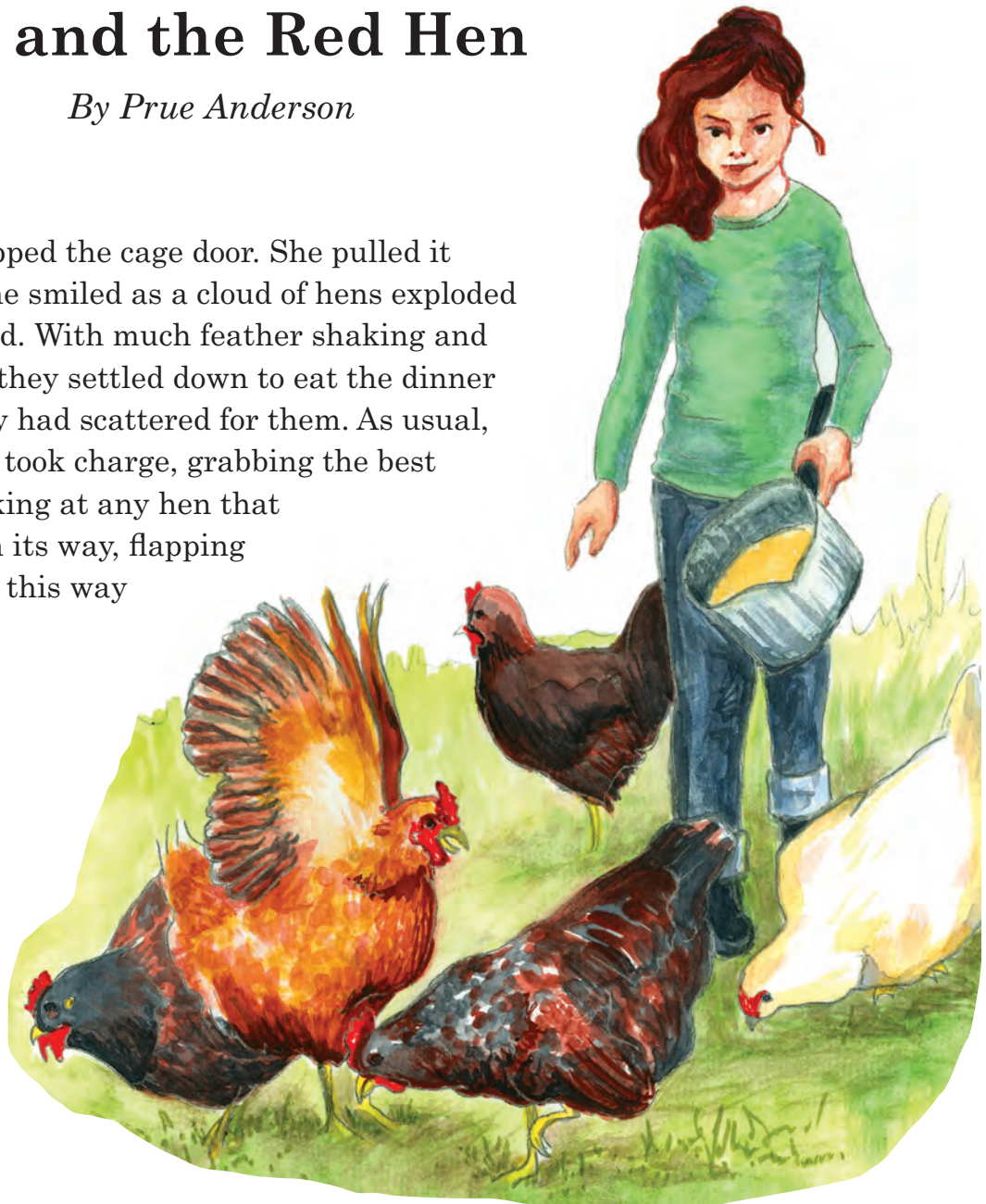


*The Green Sea Turtle's
Journey of a Lifetime* _____ 15

Macy and the Red Hen

By Prue Anderson

Macy unclipped the cage door. She pulled it open and she smiled as a cloud of hens exploded into the yard. With much feather shaking and squawking they settled down to eat the dinner scraps Macy had scattered for them. As usual, the red hen took charge, grabbing the best scraps, pecking at any hen that dared get in its way, flapping and fussing this way and that.



“Why do the other hens let the red hen boss them like that?” Macy had asked her mother.

“Hens have a pecking order,” her mother explained. “The bravest and strongest hen is in charge. She can peck all the other hens, but no one can peck her. The next hen in the pecking order can peck everyone except the top hen and so it goes all the way down, so you feel really sorry for the poor hen at the bottom. Hens like a bossy leader.”

But Macy had a different view. Every night she had to lock the hens back in their cage so that foxes and owls did not get them. This was her job. Everyone in her large family had jobs. By the time it was getting dark, all the hens were happy to go back into their cage. That is, all except the red hen. She would pretend to walk towards the cage door, and at the last minute would suddenly rush to the side and wait for Macy to chase her.



Another trick was to sit in the middle of the yard. As soon as Macy got close enough to bend down and pick her up, the hen would flap her wings really hard so Macy could not grab her, then she would run off again. Eventually, after the red hen had decided that Macy had chased her enough, she would calmly walk into the cage by herself, her little red eyes gleaming in triumph as Macy slammed the cage door behind her.

Macy had tried to lure the red hen by putting her favourite food inside the cage at night, but the hen would not be bribed. Macy had tried banging pot lids together to frighten the red hen, but she scared the other hens so much they did not lay any eggs for two days.



Macy went to find her father. “I need to teach that red hen a lesson,” she said. “I’m going to leave her out all night to fight the foxes and the owls. That will teach her to go in her cage when I say.”

“Macy,” said Dad, as he turned to look at her. “A hen cannot fight an owl or a fox and we need our hens. We need all the eggs we can get.”

He smiled. “Besides, it would not solve your problem, because the next hen in the pecking order would just take the red hen’s place.” He turned back to his work.

Macy stomped to the kitchen. “Mum, I don’t like my job, I need a different job.”

“Well that’s easy,” said Mum. “You can cook dinner.” Macy looked at the huge pile of food on the bench that had to be cleaned and chopped and stirred to feed all of her family.

“You can wash the dishes.” Macy looked at the stack of dirty pots and pans from last night still piled up on the sink.

“You can look after the baby.” Macy looked at her little sister happily squashing banana into her face, her hair, and her clothes.

Macy retreated out the kitchen door. “I would like your job,” her mother called after her.



That night as Macy was chasing the red hen around the yard she saw an owl gliding down on the other side of the yard fence.



The owl swooped across the grass on its huge white wings, grabbed a mouse in its claws, and soared back into the shadows. This gave Macy an idea. The next day Macy got wire and some white cloth and made two big wings on the end of a long pole. She explained her plan to her brother Sam.

That night when Macy was chasing the red hen as usual, Sam stepped into the yard with the pole that Macy had made. He made the wings swoop down towards the red hen. The hen stopped running and fluffed up her feathers, squawked furiously and beat her wings, ready to face her attacker, but the white wings kept coming closer and closer. The red hen's squawking faded away. She crouched down low on the ground, her beak pointing up ready to peck if she got the chance. Suddenly, Macy stepped in.



Macy shouted at the white wings. She hit the wings with her hands and pushed the wings away. Her brother lifted the wings upwards. Down they came again and Macy fought them off. The red hen's beady little eyes watched it all as she crouched at Macy's feet. Finally, the terrifying wings gave up and flew away.

Macy bent down and put out her hands. The red hen rushed into them and gently laid her beak on Macy's arm. Macy could feel the hen's little heart pounding in her feathery chest as she carried her back to the cage. She cuddled the hen until its heart slowed down then gently put her in the cage and smiled at Sam.

"Now you are the top of the pecking order," laughed Sam.

Questions Macy and the Red Hen

1. What is Macy doing at the start of the story?

- (A) catching a hen
- (B) feeding the hens
- (C) looking for eggs
- (D) collecting feathers

Correct: Ireland: 90% PIRLS: 88%

2. How does the author show you what the red hen is like?

- (A) by describing what the red hen looks like
- (B) by describing the red hen's favourite food
- (C) by describing where the red hen lives
- (D) by describing how the red hen behaves

Correct: Ireland: 90% PIRLS: 79%

3. Why does Macy's mother feel sorry for the hen at the bottom of the pecking order?

Answer must indicate that all the other hens can peck it, or it cannot peck anyone, or that it gets the worst conditions.

- *The leader of the hens keeps bossing her around.*
- *All the other hens can peck her.*

Correct: Ireland: 65% PIRLS: 45%

4. Why does the red hen play tricks on Macy?

Answer must indicate that the red hen is top of the pecking order / the boss / thinks she is better.

- *The red hen thinks because it is the bravest and strongest it can play tricks.*
- *The hen is bossy.*

Correct: **Ireland:** 19% **PIRLS:** 18%

5. Why does Macy slam the cage door?

- (A) Macy is angry.
- (B) The door is hard to close.
- (C) A fox is coming.
- (D) The red hen is escaping.

Correct: **Ireland:** 79% **PIRLS:** 63%

6. Macy wants the red hen to go into the cage.

What are two things Macy does that **do not** work?

2 points: Identify any two of the following:

- Picking up the hen.
- Putting food inside the cage/luring the hen with food.
- Banging lids together/making noise (to scare the hen).
- Chasing the hen.

1 point: Identify one of the above.

2 Points **Ireland:** 63% **PIRLS:** 49% **1 Point** **Ireland:** 17% **PIRLS:** 23%

7. Why does Dad object to Macy's idea?

- (A) The red hen might hurt itself.
- (B) The red hen would stop laying eggs.
- (C) Dad thinks the red hen would be killed.
- (D) Dad wants to teach the hen a lesson.

Correct: **Ireland:** 56% **PIRLS:** 41%

8. Dad says the next hen in the pecking order would just take the red hen's place.

What does he mean?

Pupils must show understanding that the pattern or problem will continue.

- *He means that the next hen will do exactly the same thing that the red hen did.*

Correct: **Ireland:** 59% **PIRLS:** 43%

9. Why does Mum say, "I would like your job"?

- (A) Mum feels sorry for Macy.
- (B) Macy should do more jobs around the house.
- (C) Mum really likes looking after hens.
- (D) Macy should understand Mum has harder jobs.

Correct: **Ireland:** 57% **PIRLS:** 55%

10. How does Macy get her idea?
- (A) Macy's brother, Sam, tells her the plan.
 - (B) Macy sees an owl catch a mouse.
 - (C) Macy's Dad tells her about owls.
 - (D) Macy sees wire and some white cloth.

Correct: **Ireland:** 81% PIRLS: 70%

11. Why does Macy make white wings on a pole?
- (A) to make it look like hen's feathers
 - (B) to make a decision
 - (C) to make it look like an owl
 - (D) to impress Sam

Correct: **Ireland:** 91% PIRLS: 79%

12. Macy "hit the wings with her hands and pushed the wings away."
What does Macy want the hen to think?
- (A) that Macy is saving the hen
 - (B) that Macy is angry with the hen
 - (C) that Macy is terrified of the owl
 - (D) that Macy is playing with the owl

Correct: **Ireland:** 82% PIRLS: 70%

13. You learn what Macy is like from the things she does.
Describe what Macy is like and give two examples from the story that show this.

3 points: One trait, feeling, or attitude supported with two different appropriate examples OR two traits, feelings or attitudes with an example for each. Possible attributes include being smart, determined, conscientious, or curious. Possible examples include thinking of creative solutions, getting annoyed by the hen, doing her jobs each day, or asking questions to understand the problem.

- *Macy is determined because she does not give up when the red hen is naughty and she continues to try different ways to get the hen in the cage.*
- *She's smart cos she got the hen in the cage and she doesn't quit cos she tried lots of times.*

2 points: One trait, feeling or attitude with one appropriate example.

1 point: One or more traits, feelings or attitudes with only a vague, or no example;

- *She is clever and smart.*

3 Points

Ireland: 28% PIRLS: 15%

2 Points

Ireland: 25% PIRLS: 18%

1 Point

Ireland: 23% PIRLS: 20%

14. Why is Macy at the top of the pecking order at the end of the story?
Use the information from the story to explain your answer.

Answer refers to Macy's clever plan / the hen being saved or scared / Macy scaring away the owl.

- *The red hen thinks Macy saved it.*
- *She saved the hen from the owl.*

Correct:

Ireland: 59%

PIRLS: 43%

15. What do you think the red hen will do next time Macy puts the hens in their cage?

Answer indicates that the hen will behave.

- *She will just sit down until Macy comes and picks her up.*
- *It'll be obedient.*

Correct:

Ireland: 78%

PIRLS: 62%

16. Why would “Macy Finds a Way” be good as a different title for this story?
Give one reason.

Answer indicates that Macy was able to solve her problem.

- *She did find a way to make the hen do what she wanted.*
- *She found a way to get the hen to listen to her.*

Correct:

Ireland: 55%

PIRLS: 35%

The Green Sea Turtle's Journey of a Lifetime

From *Turtle Travels*
By Gary Miller



Out From the Sand

It's a starry night in August. A nest of eggs lies buried in the sand more than half a metre below the surface of a Costa Rican beach. The nest holds more than 100 green sea turtle eggs, each about the size of a golf ball.

One of the baby sea turtles begins to stir and hatch from her egg. The hatchling tears at the shell of her egg with the sharp point on her beak. Still buried beneath the sand, the baby sea turtle breaks free. Soon, the whole nest is alive with motion.

The baby turtle uses her flippers to climb up and up. It can take more than a day to reach the surface of the sand.

Into the Water

When the hatchling reaches the surface of the sand, she is drawn to the moonlight reflecting off the ocean. Luckily, there are no lights shining from a nearby street or house. These lights can confuse a baby turtle. They can make it go the wrong way, away from the sea.

The hatchling's journey to the water is a race for survival. She is no bigger than a walnut. Crabs and birds, such as night herons, snatch up some of the other baby turtles on the beach. This baby turtle makes it to the water.

The frothy surf pushes the baby turtle back. She fights to swim against the breaking waves. The hatchling continues to swim through the first day and night, and she does not slow down for two days.

Out to the Open Sea

The baby turtle's journey through the open sea is often called the "lost years." Scientists know little about this phase of a green sea turtle's life. She may move with the currents, floating with mats of seaweed.

The hatchling may snack on prawns, small jellyfish, and snails that drift in and around the seaweed. Unfortunately, the sea also contains plastic and rubbish that people throw away. Eating these could be deadly for the turtle.



The sea has many other dangers, too. Predators such as sharks swim below the small turtle and large birds fly above. Fortunately, she gets some protection from the colouring of her shell. The bottom is almost white, so sharks swimming below may not spot her in the sunlight. The top of her shell is dark, so from above the turtle blends into the dark water.

Growing Up Green

After several years, she has become a juvenile. She is no longer a hatchling, but she is not yet an adult. Her shell has become about the size of a dinner plate. It is now time to leave the open sea for the warm coastal waters of Florida, in the United States.

With her larger shell she is safer than she was as a hatchling. Although she sometimes slurps up a jellyfish, now she mostly eats algae and sea grass.

Years pass as she slowly grows. She moves farther off shore to feeding grounds where she becomes an adult.

At night, she rests in the water under rocks and ledges, holding her breath for up to five hours. Each day, she returns to the same patch of sea grass called turtle grass. Like a lawnmower, the turtle keeps this sea grass pasture cut short. Eating sea grass and algae turns her body fat a green colour. In fact, this is how green sea turtles get their name!



Back to the Sand

When the turtle is about 26 years old, her adult shell is nearly a metre long and she weighs around 140 kilogrammes. Now she sets out on a new adventure. She begins her long trek back to the beach where she was born. She is going to lay her own eggs.



The sea turtle may have to travel over 1000 kilometres, but she is well equipped for the journey. Her flippers are like wings. She flies through the water.

Scientists are still learning how a sea turtle can find its way through the ocean. They think the turtles may sense changes in Earth's magnetic field. That may help the turtles create a kind of mental map. Their memory of chemicals or smells in the water may also help them find their way.

Once she returns to her birthplace, she finds a mate. A few weeks later, she waits until it is dark, and then climbs onto the beach.



The Next Generation

Out of the water, she struggles to move on land. She crawls to a place where high tides will not wash away her eggs. Using her front flippers, she digs a wide pit. This will become her nest. With her rear flippers, she scoops out a smaller hole inside the pit.

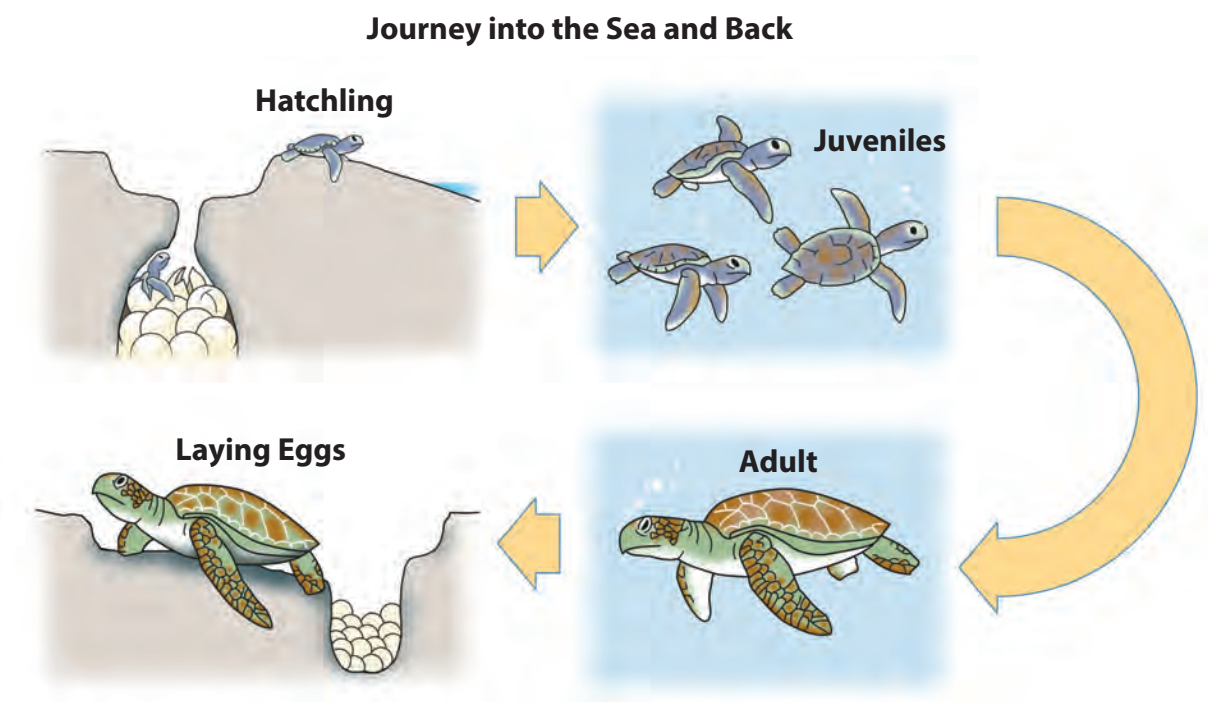
After two hours of hard work, she is ready to lay more than 100 leathery white eggs inside the smaller, deeper hole. She packs sand over them. Then she tosses sand over the whole nest.

During the following two months, she will dig and lay eggs in three more nests. After two months, the new hatchlings break out of their shells to begin their own journeys.

Turtles Live On

After laying all of her eggs, this adult sea turtle once again sets out for her feeding grounds off the coast of Florida. Every few years she and other adult turtles will return to this beach to lay more eggs.

Every green sea turtle does this throughout its entire life, which could last up to 80 years. Over this time, thousands of baby green sea turtles will be born and set out into the open sea.



Questions The Green Sea Turtle's Journey of a Lifetime

1. What is the first section "Out From the Sand" about?

- (A) what different sea turtles look like
- (B) how sea turtles learn to swim
- (C) what sea turtles like to eat
- (D) how sea turtles' eggs hatch

Correct: **Ireland:** 92% **PIRLS:** 84%

2. "One of the baby sea turtles begins to stir and hatch from her egg."
Write the first two things the hatchling does next.

2 points: The response indicates two of the following: breaking the shell of the egg, getting out of the shell, digging/climbing out to the surface, or moving toward the water.

- *She uses her flippers to get out.*
- *She goes to the sea.*

1 point: One of the above points.

2 Points 1 Point
Ireland: 66% **PIRLS:** 51% **Ireland:** 21% **PIRLS:** 16%

3. When the hatchling reaches the surface of the sand,
What helps her go the right way?
What can confuse the hatchlings?

2 points: The response shows understanding of both parts of the question. Helps: the hatchling is drawn to (moon) light reflecting off the sea/away from darkness. Confuses: the hatchling is confused by artificial light inland.

- *Moonlight reflecting on the ocean.*
- *Lights from people.*

1 point: Response shows understanding of one part of the question.

2 Points 1 Point
Ireland: 49% **PIRLS:** 41% **Ireland:** 26% **PIRLS:** 24%

4. Why is the hatchling's journey to the water a "race for survival"?
Use the text to explain your answer.

The answer indicates the hatchlings have to avoid danger from predators.
- *The crabs and birds and herons will snatch them up.*
- *Because birds can swoop down and eat them.*

Correct: **Ireland:** 66% **PIRLS:** 53%

5. What is the first thing the hatchling does when she finally gets past the breaking waves?

- (A) searches for the other hatchlings
 (B) keeps swimming far out to sea
 (C) rests in the seaweed
 (D) finds food to eat

Correct: **Ireland:** 57% **PIRLS:** 57%

6. According to the article, what is one way people have made the sea more dangerous for turtles?

The answer lists one of: plastic; trash/rubbish/garbage/litter/waste; pollution; or, lights/street lights/car lights.

Correct: **Ireland:** 85% **PIRLS:** 72%

7. The colour of a hatchling's shell protects it from predators.
Give a way it is protected from birds.
Give a way it is protected from sharks.

2 points: Acceptable response for protection from both birds and sharks.

Birds: the answer recognises that the dark shell colour of the top conceals the turtle by blending in with the dark water. Sharks: the answer recognises that the light shell colour of the bottom conceals the turtle by blending in with the sunlight.

- *It is the same colour as the sea.*
- *The bottom of the shell underneath the turtle is white so a shark that is underneath the turtle thinks that they turtle is in the sunlight.*

1 point: acceptable answer for protection from birds OR protection from sharks.

2 Points
Ireland: 26%

PIRLS: 25%

1 Point
Ireland: 24%

PIRLS: 19%

8. When does a sea turtle hold its breath for up to 5 hours?

Answer indicates sleeping, resting, or at night.

- *To sleep.*

Correct:

Ireland: 67%

PIRLS: 53%

9. What does the article tell you about the feeding habits of an adult green sea turtle?

- (A) It looks for food under rocks and ledges.
- (B) It swims long distances to find food.
- (C) It goes to the same place every day to eat.
- (D) It uses smells in the water to help it find food.

Correct:

Ireland: 65%

PIRLS: 47%

10. Why does a sea turtle's body fat become green?

Answer identifies that it eats green food.

- *The algae and seaweed it eats make it green.*
- *Grass.*

Correct:

Ireland: 79%

PIRLS: 61%

11. What information does the article provide about the sea turtle's size and food at each stage of its life?

Complete the table below.

Three have been done for you.

Stage of life	Size	Food
egg	<i>Golf ball</i>	The egg has its own food.
hatchling	<i>walnut</i>	<i>Shrimp (or crabs, prawns, shellfish) Jellyfish Snails/sea snails</i>
juvenile	dinner plate	<i>Algae Sea grass/grass/turtle grass or seaweed jellyfish</i>
adult	<i>1 metre 140 kg</i>	algae and sea grass

3 points: Correctly completes all 5 spaces.

2 points: Correctly completes 4 spaces.

1 point: Correctly completes 3 spaces.

3 Points

Ireland: 44% PIRLS: 22%

2 Points

Ireland: 14% PIRLS: 16%

1 Point

Ireland: 10% PIRLS: 11%

12. How old is a female green sea turtle when she first sets out to lay her eggs?

- (A) about 3 years
- (B) about 10 years
- (C) about 26 years
- (D) about 80 years

Correct: **Ireland:** 80% **PIRLS:** 69%

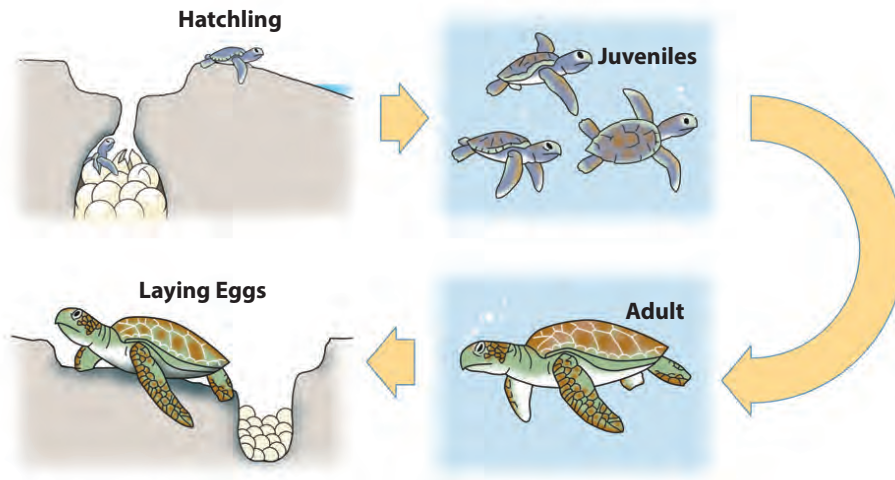
13. Which activity in an adult female green sea turtle's life is not fully understood by scientists?

- (A) how she can swim over 1000 kilometres
- (B) how she makes a nest for her eggs
- (C) how she avoids being eaten by predators
- (D) how she finds the right beach to lay her eggs

Correct: **Ireland:** 52% **PIRLS:** 45%

14. A diagram from the article is shown below.

What does this diagram help you to understand?



The answer indicates the life cycle or stages in a turtle's life.

- *It shows the order of the stages.*
- *Journey of life/life journey/path of life.*

Correct:

Ireland: 54%

PIRLS: 47%

15. How does the writer show you that the green sea turtle is special?

- (A) by asking you to help to save it
- (B) by telling you the amazing things it does
- (C) by describing how beautiful it looks
- (D) by warning you that few turtles are still alive today

Correct:

Ireland: 62%

PIRLS: 49%

16. The article is divided into sections with headings.

What does each section tell you about?

- (A) different dangers sea turtles face
- (B) different life stages of a sea turtle
- (C) different kinds of sea turtles
- (D) different beliefs about sea turtles

Correct:

Ireland: 70%

PIRLS: 57%

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