

Golf Academy — Math & Statistics

Parent-Teacher Notes

Stage 1: Discover & Play

Your role: curious co-investigator · 6 Weeks · 24 Lessons · Homeschool Edition

How to Use This Document

This document contains every parent-teacher note from the Stage 1 Math & Statistics curriculum — all six weeks, all four lessons per week.

Each note tells you what the lesson is doing mathematically, how to facilitate the key activity or discussion, what to watch for in your child's response, and where to push further if they are ready.

Notes are written for you — the parent-teacher — not for your child. Read the Week Guidance box at the start of each section before beginning that week's lessons.

The Quick Reference table at the back gives you a single-sentence facilitation priority for every lesson — ideal for a fast review before each session.

Stage Overview

Your role: curious co-investigator alongside your child

At Stage 1 your role is discovery companion, not math teacher. The goal is to make numbers feel alive and useful — not like school exercises. Every activity should connect to something real: a real scorecard, a real hole, a real shot distance your child just hit. When your child asks, 'why do we need to know this?' the answer is always right in front of you on the golf course.

Week 1 — Counting on the Course · Numbers are everywhere in golf

Week Guidance

Week 1 builds the foundational idea that golf is one of the most number-rich sports in existence. Keep everything playful and concrete — count real things, use real scorecards, walk real holes. The goal is to make your child feel that numbers are not abstract school subjects but living tools they use every time they play.

LESSON

1

Golf Is a Numbers Game

Parent-Teacher Note

Do not correct your child's arithmetic in the moment — let them count and calculate themselves, then check together afterward. The independence of counting their own shots is more valuable than perfect scores on the first try. Some children will lose count; help them develop the habit of counting each swing quietly as they go.

LESSON

2

Reading a Scorecard

Parent-Teacher Note

A real scorecard from your own facility is far more engaging than any worksheet. Many children become genuinely fascinated by the information packed into a scorecard once someone explains each column. Take your time — this is a real document used by real golfers every day at this exact course.

LESSON

3

Adding Up Your Score

Parent-Teacher Note

The habit of running totals — adding up every 3 holes rather than waiting until the end — is how all real golfers track their rounds. If your child makes an arithmetic error, turn it into a learning moment: 'Let's count together. What did you get on each hole? Let's add them again.'

LESSON

4

Distances and Numbers on the Course

Parent-Teacher Note

The bedroom comparison makes an abstract distance concrete and personal. Most children have never genuinely tried to visualize 150 yards as a physical distance. The mental estimation exercise — dividing 150 yards (450 feet) by the length of their bedroom — is genuine mental arithmetic with a satisfying real-world answer.

Week 2 — Shapes and Patterns · Geometry on the golf course**Week Guidance**

Week 2 introduces spatial thinking — one of the most important mathematical skills in golf. Professional golfers are constantly thinking geometrically: angles of approach, shapes of holes, curves of greens. Ground every concept in the actual course your child plays on.

LESSON

1

Circles, Ovals, and the Putting Green

Parent-Teacher Note

The bird's-eye view sketch requires genuine spatial observation — your child has to think about what the green would look like from above, not just how it feels to walk on it. Walk around the entire perimeter of the green with them so they can build a mental map before drawing.

LESSON

2

Straight Lines and Angles

Parent-Teacher Note

The dogleg angle estimation is genuine geometric thinking applied to a real strategic problem. Do not worry about whether your child's angle estimate is accurate — what matters is that they are thinking spatially about hole shape and relating that shape to strategic decisions.

LESSON

3

Patterns on the Greens

Parent-Teacher Note

The prediction-and-observation cycle is the scientific method in its simplest form. Encourage your child to genuinely commit to their predictions before putting — writing them down makes them real. A wrong prediction is just as valuable as a right one if it leads to a useful observation.

LESSON

4

Symmetry and Course Design

Parent-Teacher Note

The hole symmetry analysis requires your child to hold the whole hole shape in their mind simultaneously. Walk the hole slowly, stop on both sides, and look across the fairway before drawing. Some children will need two full walks — one along each side — before they can produce an accurate drawing.

Week 3 — Measuring and Comparing · Length, distance, and what the numbers tell us

Week Guidance

Week 3 is where math becomes most directly useful on the course. Every club distance, every yardage decision, every comparison between scores is measurement and comparison. Make every activity as real and on-course as possible.

LESSON

1

How Long Is the Hole?

Parent-Teacher Note

The round-trip calculation — multiplying hole length by 2 — is a gentle introduction to multiplication as repeated addition. Most Stage 1 students can handle this with a little guidance. Let your child work through it themselves before checking.

LESSON

2

Measuring Your Own Shots

Parent-Teacher Note

The average calculation — add and divide — is one of the most important statistical operations in golf. At Stage 1 the calculation itself is simple; the habit of thinking in averages rather than single data points is what matters. Help your child understand that one shot tells you very little, but five shots averaged tells you something real.

LESSON

3

Comparing Numbers: More, Less, and Equal

Parent-Teacher Note

The two-round comparison creates a personal performance baseline — the most basic form of statistical tracking. The goal-setting at the end ('I want to improve by ___ shots') builds on the comparison by making it forward-looking. Even an ambitious goal stated in quantitative terms builds the right habit.

LESSON

4

Graphs: Drawing What We Measured

Parent-Teacher Note

The bar graph color-coding (red = over par, green = at or under par) creates an immediate visual pattern children find satisfying and revealing. The long-term line graph is most valuable if your child adds to it across multiple weeks — it becomes a record of their development. Start it now and keep going.

Week 4 — Time and Speed · How time and pace shape every round

Week Guidance

Time and pace are where math meets etiquette and environmental science simultaneously. A golfer who understands how long it takes to play and why pace matters is a better playing partner, a more strategic thinker, and more respectful of the course and the people playing behind them.

LESSON

1

How Long Does a Round Take?

Parent-Teacher Note

The pace-of-play calculation is one of the most immediately useful math applications in this curriculum. Many young golfers and their parents have never actually timed a hole. The moment they see that a single slow hole multiplied by 18 adds significant time to a round, the etiquette rule becomes logical rather than arbitrary.

LESSON

2

Fast and Slow: Comparing Speeds

Parent-Teacher Note

The walking pace calculation makes the abstract idea of pace of play viscerally real. Even saving 20 seconds per hole means saving 6 minutes per round — and if every player in a four-ball does the same, that is 24 minutes saved. These numbers are surprising and memorable.

LESSON

3

Counting Backwards: Handicaps and Giving Shots

Parent-Teacher Note

The handicap role-play is the first genuine multi-step calculation in this curriculum. Work through the first example together slowly, explaining each step. Then let your child do the second example independently and check the answer. The insight that a higher-scoring player can win because of the handicap system is usually genuinely surprising and delightful.

LESSON

4

Keeping a Golf Diary: Tracking Over Time

Parent-Teacher Note

The golf diary is the single most powerful long-term assessment tool in this curriculum. Its value compounds over time — the more rounds recorded, the more meaningful the data. Treat the diary as something permanent and important. Let your child choose the notebook themselves so they feel ownership over it.

Week 5 — Statistics and Fairness · What numbers really tell us about the game

Week Guidance

Week 5 is where math becomes genuinely analytical. Average, most common, best, worst — these are the statistical foundations of everything from personal improvement tracking to professional tour analytics. Keep the data real by using your child's own scores wherever possible.

LESSON

1

What Is an Average?

Parent-Teacher Note

The putting percentage calculation introduces the concept of percentage as a way of comparing results on a common scale. 3 out of 10 from 5 feet vs. 5 out of 10 from 3 feet — converting to percentages (30% vs. 50%) makes the comparison immediate. This is the foundation of all performance statistics.

LESSON

2

Most, Least, and Middle

Parent-Teacher Note

The number line visualization of a round is a genuinely revealing exercise. Most children have never seen their scores displayed this way. The cluster of scores at one end or the other, or a spread across a wide range, tells a story about consistency that a total score alone cannot show.

LESSON

3

Counting What Matters: Simple Stats

Parent-Teacher Note

The three-stat tracking round is one of the most practically valuable assignments in this curriculum. The first time a child counts their actual putts per round — often surprisingly high — it creates genuine motivation to practice putting. Let the data do the teaching.

LESSON

4

Fair Play and Equal Chances

Parent-Teacher Note

The match play role-play often produces the genuinely surprising insight that you can win a match while scoring more total strokes than your opponent. This strategic insight — in match play, a 2 and a 10 on the same hole are worth the same — is non-trivial and worth discussing.

Week 6 — Math in Every Round · Putting it all together — you are a golf mathematician

Week Guidance

Week 6 is synthesis and celebration. Your child has spent five weeks building genuine mathematical intuition through golf. The goal of this final week is to help them feel the connection between all of it, and to end with pride in what they have built.

LESSON

1

The Math All Around You

Parent-Teacher Note

The math audit is a metacognitive exercise — thinking about what you learned and how you used it. The act of finding real examples from your own work (not a textbook) is both more meaningful and more revealing. Some children will surprise you with their ability to articulate what each calculation told them about their golf.

LESSON

2

Your Personal Golf Statistics Report

Parent-Teacher Note

The self-written statistics report is the strongest assessment in Stage 1. A child who can produce a genuine, data-based evaluation of their own performance has internalized the entire curriculum. If your child has limited data, help them estimate or recall — even approximate data produces a useful report and the right thinking habits.

LESSON

3

Math Off the Course

Parent-Teacher Note

The non-golf tracking activity completes the transfer of mathematical thinking beyond golf. Encourage your child to choose something genuinely interesting to them — the topic matters less than the habit. A child who tracks and graphs something they care about has internalized the statistical mindset in a way that cannot be unlearned.

LESSON

4

You Are a Golf Mathematician

Parent-Teacher Note

The Golf Math Fact Book is the Stage 1 capstone for this subject. It parallels the Physics Fact Book and the History Gallery — a cumulative portfolio piece representing genuine learning. Encourage real investment in making it complete and beautiful. It is a document worth keeping as a record of this stage.

QUICK REFERENCE — FACILITATION PRIORITIES

One-sentence priority for every lesson in Stage 1 Math & Statistics

Wk	Les	Lesson Title	Key Facilitation Priority
1	1	Golf Is a Numbers Game	Let your child count independently — check together afterward, not in the moment.
1	2	Reading a Scorecard	Use a real scorecard from your facility — it is more engaging than any worksheet.
1	3	Adding Up Your Score	Build the running-total habit — add up every 3 holes, not just at the end.
1	4	Distances and Numbers on the Course	Make 150 yards concrete — compare it to something in your child's daily physical world.
2	1	Circles, Ovals, and the Putting Green	Walk the full perimeter of a green together before sketching — build the mental map first.
2	2	Straight Lines and Angles	Accept imprecise angle estimates — spatial thinking about strategy is the goal, not accuracy.
2	3	Patterns on the Greens	Write down predictions before putting — a wrong prediction is as valuable as a correct one.
2	4	Symmetry and Course Design	Walk both sides of the fairway before drawing — some children need two full walks.
3	1	How Long Is the Hole?	Let your child work the round-trip multiplication independently before checking the answer.
3	2	Measuring Your Own Shots	Five averaged shots tells you more than one shot ever can — build that statistical instinct.
3	3	Comparing Numbers: More, Less, and Equal	Create a personal performance baseline and a specific quantitative improvement goal.
3	4	Graphs: Drawing What We Measured	Start the long-term line graph now and add to it every round — it becomes a development record.
4	1	How Long Does a Round Take?	Time one hole together — multiplied by 18, the result makes pace-of-play rules feel logical.
4	2	Fast and Slow: Comparing Speeds	Calculate the full-round time saving from walking with purpose — the numbers are surprisingly motivating.
4	3	Counting Backwards: Handicaps and Giving Shots	Work through the first handicap example together, then let your child solve the second independently.
4	4	Keeping a Golf Diary: Tracking Over Time	Let your child choose their own golf diary notebook — ownership over the object builds ownership over the habit.
5	1	What Is an Average?	Convert raw counts to percentages — the comparison between distances becomes immediate and meaningful.
5	2	Most, Least, and Middle	Plot hole scores on a number line — the visual distribution reveals consistency patterns a total score hides.
5	3	Counting What Matters: Simple Stats	Let the data do the teaching — total putts per round is usually a surprising and motivating number.
5	4	Fair Play and Equal Chances	The match play role-play produces a genuine surprise — you can win with a higher total score. Let that land.
6	1	The Math All Around You	Find real examples from your child's own work — not from a textbook — for the math audit.
6	2	Your Personal Golf Statistics Report	The self-written statistics report is the strongest assessment in Stage 1 — take it seriously.
6	3	Math Off the Course	Let your child choose what to track outside golf — their interest in the topic is more important than the subject.
6	4	You Are a Golf Mathematician	The Golf Math Fact Book is a portfolio piece worth keeping — invest real time in making it complete and beautiful.

