

KODELY LEADER GUIDE · Ocean Explorers

12 sessions · 60 minutes · every week = an ocean build + a character + a wow

Outline + link bank: each week lists the published lesson plans that work for it and the teacher video to learn from. The course export already has full verbatim scripts, 10-step builds, and slip-fix tables — this guide is the map on top.

★ THE RULES THAT NEVER CHANGE

1. **WE ORDER ALL MATERIALS FOR YOU** — kit ships everything except sink water. Missing items → Kodely ops, never the site.
2. **Never end early, never free time.** Every export week has 6 built-in fillers + a body game; the standing ones: wave race · Passport sketch-and-label · character callback ("WAVY WANDA!" → "WAVES!") · slow-motion challenge · human wave.
3. **Water discipline is the whole ballgame:** bottles are LEADER-sealed (cap + duct tape), water stays in trays/bottles, spill = 60-second calm reset, safety glasses for capping/shaking weeks. Towels staged before kids arrive, every week.
4. **Every week has a character** (Wavy Wanda, Captain Cove...) with a callback — fire it 3-4× per hour; it's the attention-reset button. The [character cheat sheet is export Lesson 13](#) — read it once.
5. **Every session, same skeleton:** verbatim character opening → concept in kid language + rope/ribbon-style demo → 10-step build WITH the kids → body game during any wait → show-on-phone visual → circle + Passport stamp + next-week teaser.
6. **Master materials list is export Lesson 14** — check next week's items before you leave this week.

RESOURCES

- [NOAA — Hands-On Science Activities collection](#) — the national ocean agency's free activity library; the course's science backbone (its Week 1 already cites [NOAA's waves page](#)).
- [Smithsonian Ocean — Educators' Corner](#) — museum-published ocean lessons, including the [Oil Spill Cleanup Challenge](#) (Week 9).
- [Science Buddies — Slippery Shores: Oil Spill Clean-Up lesson plan](#) and [TeachEngineering — Oil Spill Clean-Up design activity](#) — two full classroom lesson plans for Week 9.
- [Little Bins — Ocean Activities hub](#) — photo versions of half the course's builds (wave bottles, oceans layers, boats).
- Teacher videos: SciShow Kids has kid-level episodes on waves, ocean animals, and blubber — YouTube search "**SciShow Kids [topic]**" the night before. Specific strings per week below.

WEEK-BY-WEEK — what each session needs

WEEK 1 · Bottle Wave Maker

- Clear 16-20 oz plastic bottles + caps — 6 (reused W4, W7 — buy the 48-pack once, it covers all three weeks and spares)
- Blue liquid watercolor or food coloring — ~18 drops (one set lasts the whole program)
- Baby oil / mineral oil — ~1 cup (16 oz bottle covers the cohort)
- Duct tape — 1 roll (leader seals caps; also used W6)
- Child safety glasses — 6 (reused W2, W7, W9)
- Kodely Passports + stamp — 6 + 1 (all weeks)
- *Site provides: water*

WEEK 2 · Cargo Boat Float Test

- Aluminum foil roll — 1 (6 × 12-inch squares per class + re-dos)
- Metal washers or pennies — ~120 (reused W7, W9 ballast)
- Blue plastic tub / under-bed bin — 1 (reused W9, W10)
- Dry-erase mini board + marker — 1
- *Site provides: water, paper towels*

WEEK 3 · Coral Reef Build

- Air-dry / modeling clay — 6 lumps (~2 lb tub covers W3 + W10)
- Pipe cleaners, assorted — ~30 (100-pack covers W3, W5, W8)
- Kraft-foam sheets, ocean colors — 1 pack (50-pack covers W3, W5, W8, W11)
- Beads / pom-poms — ~1 cup (also W10 decor)
- Small paper plates — 6
- Kid scissors — 6 (reused W5, W8, W10, W11)

WEEK 4 · Ocean Current Bottle

- Clear bottles or cups — 12 (2 per kid; from the W1 48-pack)
- Red + blue food coloring — from the W1 set
- Table salt — 1 canister (~6 tsp used)
- Pipettes or spoons — 6 (pipettes reused W7 option + W9)
- *Site provides: warm + cold water, towels*

WEEK 5 · Build-a-Fish

- Kraft-foam sheets — from the W3 pack
- Pipe cleaners — ~24 (from the W3 100-pack)
- Googly eyes — 12 (buy one assortment; also W8, W11)

- Foam scraps / sequins — 1 cup
- Glue dots or school glue — 6 (glue dots also W11)
- Markers — 6 (reused W7, W11)

WEEK 6 · Blubber Glove ★

- Quart zip bags — 18 (2-3 per glove; 100-count box)
- Vegetable shortening — ~3 cups (one large tub)
- Large bowl / tub for ice water — 1
- Duct tape — from the W1 roll
- *Site provides: ice, towels*

WEEK 7 · Cartesian Diver Submarine

- Clear bottles + caps — 6 (from the W1 48-pack; filled to the top)
- Condiment squeeze packets OR pipettes — 6 (the "diver")
- Small nuts/washers for ballast — ~12 (from the W2 washers)
- Bowl for float-testing — 1 (the W6 bowl works)
- Fine markers — from W5

WEEK 8 · Deep-Sea Glow

- Glow-in-the-dark paint OR mini glow sticks — 6+ (30-pack of glow sticks is the easy buy)
- Foam / clay creature bodies — from the W3 foam pack + clay tub
- Pipe cleaners — ~18 (from the 100-pack)
- Googly eyes — 12 (from the W5 assortment)
- *Leader brings: bright flashlight/phone light + a dark cover (blanket)*

WEEK 9 · Oil-Spill Rescue

- Cooking oil + cocoa powder — ~½ cup pre-mixed (small bottle + small tin)
- Cotton balls — ~40 (one bag)
- Spoons + mini pipettes — 6 each (pipettes from W4)
- Cloth + feather scraps — a few (feather assortment also W11 detailing)
- Dish soap — a few drops (travel size)
- Blue tub — from W2
- Safety glasses — from W1

WEEK 10 · Tide Pool World

- Modeling clay — from the W3 tub
- Shallow trays / plates — 6
- Small shells / beads / gems — 1 cup (one craft bag)
- Clay tools / kid scissors — from W3

- *Leader brings: two balls (moon + Earth prop) · Site provides: pitcher of water, towels*

WEEK 11 · Shark Senses Model

- Kraft-foam (grey/blue) — from the W3 pack (confirm grey/blue sheets are in the assortment)
- Sandpaper squares — 6 ("shark skin" feel — reused across cohorts)
- Googly eyes, glue dots, fine markers, scissors — all from prior weeks
- Craft feathers — from the W9 assortment

WEEK 12 · Ocean Showcase — Family Reveal ★

- Certificates of Completion — 6 (printed + signed by leader at home)
- Kodely stickers / small take-home — 6
- CHAMPION stamp + ink — the season stamp
- Chart paper "Ocean Explorers" banner — 1 sheet
- Tape / display stands — from bin
- Everything else = the kids' own Weeks 1-11 builds + full Passports

CONSOLIDATED SHOPPING LIST (one order, whole program, 6 kids)

#	Item	Qty	Covers weeks
1	Clear 16-20 oz bottles + caps, 48-pack	1	1, 4, 7
2	Liquid watercolor / food coloring set (incl. blue + red)	1	1, 4, 8
3	Baby oil / mineral oil, 16 oz	1	1
4	Duct tape	1 roll	1, 6
5	Child safety glasses, 12-pack	1	1, 2, 7, 9
6	Aluminum foil roll	1	2

7	Metal washers or pennies, ~200	1 pack	2, 7, 9
8	Blue plastic tub / under-bed bin	1	2, 9, 10
9	Dry-erase mini board + marker	1	2
10	Air-dry / modeling clay, 2 lb	1	3, 8, 10
11	Pipe cleaners, 100-pack	1	3, 5, 8
12	Kraft-foam sheets, ocean colors (incl. grey/blue), 50-pack	1	3, 5, 8, 11
13	Beads / pom-poms, 1 bag	1	3, 10
14	Small paper plates + shallow trays	12	3, 10
15	Kid scissors, 6	1 set	3, 5, 8, 10, 11
16	Table salt, canister	1	4
17	Pipettes, 12-pack + spoons	1	4, 7, 9
18	Googly eyes assortment	1	5, 8, 11
19	Foam scraps / sequins bag	1	5
20	Glue dots (2 sheets) + school glue	1	5, 11

21	Markers, fine, 6+	1 pack	5, 7, 11
22	Quart zip bags, 100-count	1	6
23	Vegetable shortening, large tub	1	6
24	Large bowl / tub	1	6, 7
25	Condiment squeeze packets (or use pipettes)	6+	7
26	Mini glow sticks 30-pack (or glow paint)	1	8
27	Cooking oil (small) + cocoa powder (small)	1 each	9
28	Cotton balls, 1 bag	1	9
29	Craft feathers assortment	1	9, 11
30	Dish soap, travel size	1	9
31	Small shells / beads / gems bag	1	10
32	Sandpaper squares	6	11
33	Kraft mini-notebooks (Passports), 24-pack	1	all
34	Teacher stamp + ink pad (+ CHAMPION stamp)	1	all + W12

35	Stickers + certificate sheets	1	12
36	Chart paper pad	1	12 + anchor charts

THE 12 SESSIONS — lesson plans + teacher videos per week

W1 · Bottle Wave Maker (Wavy Wanda · waves = energy). Plans: export W1 (complete) · [NOAA waves page](#) · [Little Bins wave bottle](#). Teacher video: YouTube "**ocean in a bottle wave bottle kids**". Wow: storm-then-calm; the human-wave body game teaches "water stays, energy travels."

W2 · Cargo Boat Float Test (Captain Cove · buoyancy). Plans: export W2 · [Science Buddies buoyancy activities](#) (search "aluminum foil boat") — the foil-boat cargo test is the classic. Teacher video: YouTube "**foil boat penny challenge**". Wow: the same foil ball SINKS but shaped as a boat FLOATS and carries cargo — shape beats weight.

W3 · Coral Reef Build (reef ecosystems). Plans: export W3 · [NOAA coral reef education resources](#) · [Little Bins ocean crafts](#). Teacher video: YouTube "**SciShow Kids coral reef**". Wow: the class's individual corals combine into ONE class reef wall.

W4 · Ocean Current Bottle (warm/cold density currents). Plans: export W4 · [NOAA currents education](#). Teacher video: YouTube "**warm cold water density current experiment food coloring**". Wow: blue cold water sinks under warm — the ocean's conveyor belt in a bottle (this is Chemistry Session 1's diffusion cousin — same wow, ocean framing).

W5 · Build-a-Fish (adaptations). Plans: export W5 · [Smithsonian Ocean educators' corner](#) (fish adaptation lessons). Teacher video: YouTube "**fish adaptations for kids**". Wow: every kid's invented fish must SURVIVE a habitat card the leader draws (deep sea! reef! arctic!) — adaptations become a game.

W6 · Blubber Glove ★ (insulation — the famous one). Plans: export W6 · the blubber-glove/blubber-bag activity is a polar-education classic — search "**blubber glove lesson plan**" for printable versions; [NOAA hands-on collection](#) carries insulation activities.

Teacher video: YouTube "**blubber glove experiment**". Wow: bare hand in ice water vs shortening-bag hand — kids GASP; that's why whales don't shiver.

W7 · Cartesian Diver Submarine (pressure + buoyancy). Plans: export W7 · [Science Buddies Cartesian diver](#) (search "Cartesian diver") — a squeeze-bottle classic with full instructions.

Teacher video: YouTube "**Cartesian diver bottle experiment**". Wow: squeeze the bottle, the diver sinks; release, it rises — kids control a submarine with their hands.

W8 · Deep-Sea Glow (bioluminescence). Plans: export W8 · [Smithsonian Ocean bioluminescence resources](#). Teacher video: YouTube "**SciShow Kids bioluminescence deep sea**". Wow: lights-off reveal of glow builds (mirror of Slime Lab W7 if your site runs both — the science cross-links).

W9 · Oil-Spill Rescue (engineering + stewardship). Plans: ★ three real ones — [Science Buddies Slippery Shores lesson plan](#) · [TeachEngineering Oil Spill Clean-Up](#) · [Smithsonian Oil Spill Cleanup Challenge](#). Teacher video: YouTube "**oil spill cleanup experiment kids**". Wow: kids test spoons vs cotton vs paper towel and discover cleanup is HARD — real engineers' empathy built in one tray.

W10 · Tide Pool World (intertidal zones). Plans: export W10 · [Smithsonian educators' corner](#) tide-pool lessons. Teacher video: YouTube "**tide pool animals for kids Monterey**". Wow: the tray becomes low tide THEN high tide — same world, two states.

W11 · Shark Senses Model (senses + electroreception). Plans: export W11 · [Smithsonian Ocean shark resources](#). Teacher video: YouTube "**shark senses for kids**". Wow: blindfold "ampullae" game — find the buzzing phone by sound alone, like sharks feel electricity.

W12 · Ocean Showcase — Family Reveal ★ All builds displayed as an "aquarium walk," kids docent their favorite, certificates + final stamps. Plans: export W12 (full script). Teacher prep: re-watch nothing — re-read the character cheat sheet and prep the 20-second-per-parent pickup lines.