



St Mary's
ANGELICAN GIRLS' SCHOOL

St Mary's Coral Reef Project

BOOK OF PATTERNS

Foreword

I warmly invite you to dive into creativity with the Crochet Coral Reef Project for our new Science, Enterprise, Technology and Innovation (SETI) Centre. This joyful, community-wide initiative invites students, staff, families, Old Girls and friends of the School to join in crafting a vibrant, large-scale coral reef installation made up of hundreds of unique crochet pieces.

You don't need to be an expert, all skill levels are warmly welcomed. Whether you've been crocheting for years or you've never held a hook before, there's a place for you in this project. It's the perfect chance to learn something new, connect with others, and contribute to an inspiring artwork that celebrates both creativity and community spirit.

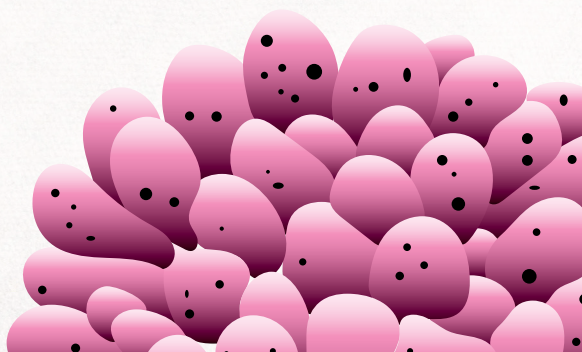
Along the way, we'll explore the wonder and vulnerability of real coral reefs, shining a light on ocean conservation and the importance of caring for our environment. Each piece, no matter how small, will help bring to life a stunning visual reminder of the interconnectedness of ocean ecosystems and of us.

Once completed, the Crochet Coral Reef will be a distinctive feature in our new SETI Centre: a colourful celebration of curiosity, collaboration and the power of making something meaningful together.

Come stitch, loop and create with us, your contribution will help our reef grow!

Mrs Judith Tudball

Principal



Marine Science at St Mary's

Marine Science holds a special place at St Mary's. As one of the most innovative and longest-running school-based marine programs in Australia, it reflects our deep commitment to nurturing curiosity, scientific thinking and a genuine love for the ocean.

Blessed with our stunning coastline location, we're able to turn the beach, reefs and waters around us into a living classroom. Here, students don't just learn about the marine world, they experience it firsthand, building real connections with the environment right on our doorstep.

From Year 9 through to Year 12, students have the chance to follow their interest in marine life and ocean systems through authentic scientific inquiry and hands-on fieldwork. Beginning with Marine Science in Years 9 and 10, students can progress to the ATAR Marine and Maritime Studies course in Years 11 and 12, where their learning deepens and expands.

Across the program, students dive into oceanography, marine physics and biology, maritime archaeology, marine mammals, coastal processes and more. Sustainability is at the heart of every unit, guiding students to explore conservation strategies, climate impacts and the role each of us plays in caring for our oceans. The program encourages not only strong scientific understanding but also a sense of personal responsibility and stewardship.

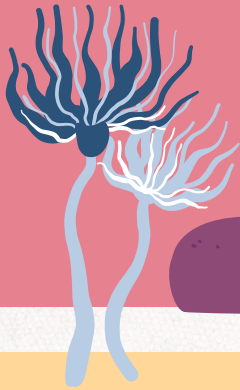
Practical research is a cornerstone of the experience. Year 9 students begin with investigations on yabbies, building foundational inquiry skills, before moving on to their own student-designed research projects in Year 10, exploring areas such as underwater robotics, scientific diving, marine engineering and ocean technology.

To bring learning to life, students participate in a range of unforgettable field experiences. Local and interstate expeditions include Albany, Exmouth, Rottnest Island and the Abrolhos Islands, while international trips open the door to diverse marine ecosystems, conservation programs and cultural perspectives from around the world.

By blending science, sustainability, adventure and real-world research, our Marine Science program helps students develop critical thinking, confidence and a deep respect for the ocean preparing them to become thoughtful, informed custodians of the marine environments we all rely on.

Corals are Animals, not Plants

Despite their plant-like appearance, corals are actually made up of tiny animals called polyps. Each coral colony is a community of these living organisms.



Reef Builders of the Ocean

Corals build massive reef structures over thousands of years by secreting calcium carbonate. These reefs are among the largest living structures on Earth and are even visible from space!



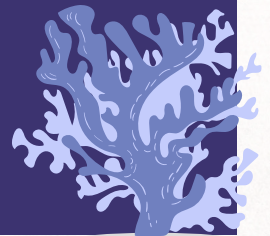
Biodiversity Hotspots

Coral reefs support around 25% of all marine life, even though they cover less than 1% of the ocean floor. They are critical ecosystems for fish, turtles and crustaceans.



Coral Reproduction

Many corals reproduce by broadcast spawning, releasing eggs and sperm into the water all at once. It usually happens just once a year and is synchronised with moon cycles and water temperature.



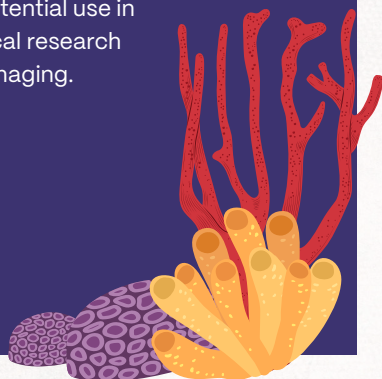
Symbiotic Relationship

Corals have a special relationship with microscopic algae called Zooxanthellae. The algae live inside the coral and provide it with food through photosynthesis. In return, the coral gives the algae a safe home.



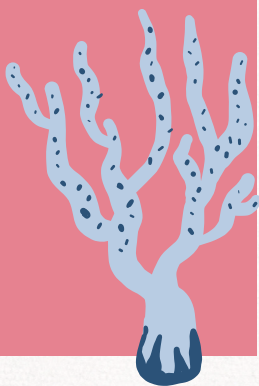
Corals Glow

Some corals produce fluorescent proteins that make them glow under UV light. Scientists are studying these proteins for potential use in medical research and imaging.



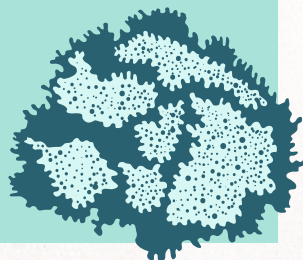
Long Life Spans

Most corals grow slowly, sometimes just a few centimetres per year and some coral colonies have been alive for hundreds, even thousands of years.



Corals Under Threat

Corals are highly sensitive to changes in temperature, pollution and acidity. Coral bleaching occurs when they expel their algae partners due to stress, often caused by warming oceans. This weakens or kills the coral.

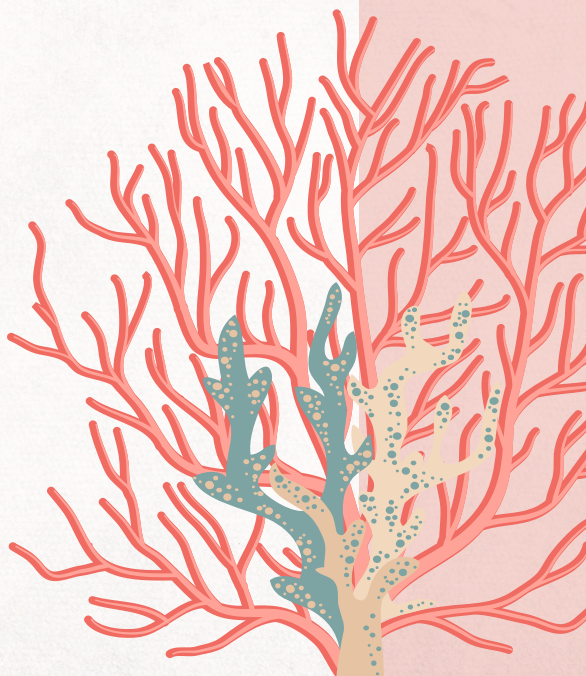


How to Use this Booklet

This booklet is both a teaching tool and a guide for your contribution to the Crochet Coral Reef Project. It is designed to help you learn about coral reefs and guide you in creating your own yarn-based coral reef components. Your creations will come together as a vibrant, handmade coral reef, celebrating marine life and promoting reef conservation. This collaborative artwork will be on permanent display in the foyer of our new SETI Centre.

We invite all students, staff, alumni and members of our community to take part. The patterns provided in this book include patterns for beginners as well as more advanced skillsets. Pick one or try your hand at several. There are no limits to how many you can make.

Whether you're new to crochet or already confident in your skills, we encourage you to use the techniques you've learned in art class and bring your own creativity to life.



General Instructions

A few ground rules for your creations:

- Yarn should be 6–10ply.
- Yarn can be any fibre (cotton, acrylic, blends, wool etc.).
- Coral species and designs other than those included in this book are welcome.
- No sea creatures or animals, with the exception of starfish, will be accepted.
- Specialty yarns (sparkly, fluffy etc.) are welcome.
- Please avoid all-black or all-white corals – small accents in these colours are fine, but we want the reef to be full of colour and life.
- Use leftover yarn from past projects if possible – let's keep it sustainable.
- Individual final pieces should not exceed 30cm x 30cm x 30cm.
- Every piece adds to the beauty of the whole – whether it's a simple spiral or a detailed anemone, your contribution matters.

Submission and Deadline

Send as you go – once you've made a few pieces or feel that your contribution is ready, send them in! Completed works can be dropped off or posted to us, as per the below details.

Postal:

Attn: Rebecca Payne
St Mary's Anglican Girls' School
75 Elliott Rd, Karrinyup WA 6018

Drop off:

Main Reception
St Mary's Anglican Girls' School
75 Elliott Rd, Karrinyup WA 6018

Please ensure all completed works are sent to the school by:

Friday 25 September 2026.

Contact Details:

If you have any questions about the project, your contribution, or how to get involved, please contact:

Deputy Principal Rebecca Payne

P. (08) 9341 9111

E. rpayne@stmarys.wa.edu.au

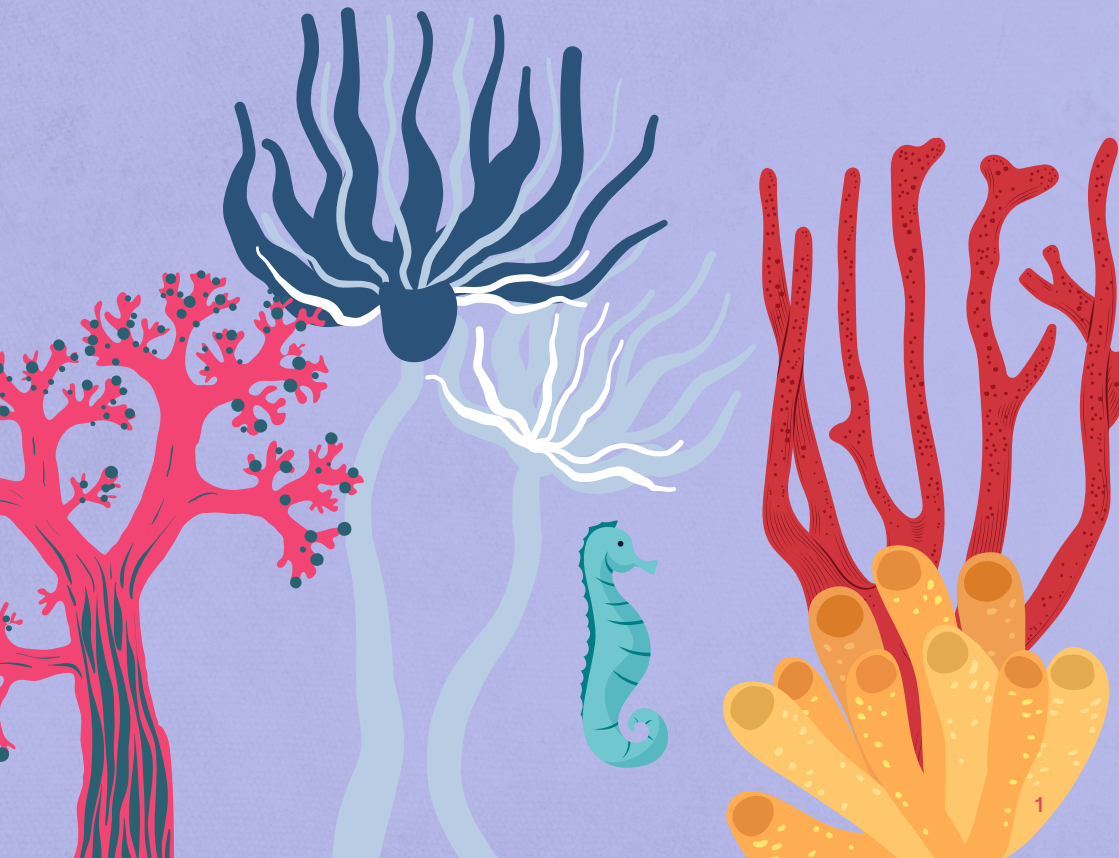


Abbreviations

US		UK	
Sc	Single crochet	Dc	Double crochet
Dc	Double crochet	Tr	Treble crochet
Hdc	Half double crochet	Htr	Half treble crochet
Sc.dec	Single crochet decrease	Dc.dec	Double crochet decrease
St(s)	Stitch or stitches		
Sl.st.	Slip Stitch		
Ch	Chain Stitch		
YO	Yarn over		
FLO	Crochet through the front loops only		
BLO	Crochet through the back loops only		
pm	Place marker		
R#	Round number		
“(sc 1, inc) # times”	Repeat instructions in the parentheses the indicated number of times		



CORAL PATTERNS





PATTERN 1	COLOURS: 1
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Brain & Boulder Corals

Mussidae and Merulinidae families

These are hard, dome shaped corals recognised by their maze like patterns. Found across Indo–Pacific reefs, they help build strong reef structures.

Fun fact: Their "brainy" grooves are living tissue wrapped around a calcium skeleton.

Brain coral 1

Use colour (A) yarn.

Ch 4	connect into ring with slst.
Ch 3	(counts as first dc), dc 9 into ring and connect to 3rd ch with slst. (10 dc)
Ch 3	(counts as first dc), *2 dc in next st. Repeat from * in all sts, and connect to 3rd ch with slst. (20 dc)
Ch 3	(counts as first dc), *2 dc in next st. Repeat from * in all sts, and connect to 3rd ch with slst. (40 dc)
Ch 3	(counts as first dc), *2 dc in next st. Repeat from * in all sts, and connect to 3rd ch with slst. (80 dc)
Ch 3	(counts as first dc), *2 dc in next st. Repeat from * in all sts, and connect to 3rd ch with slst. (160 dc)
Ch 3	(counts as first dc), *2 dc in next st. Repeat from * in all sts, and connect to 3rd ch with slst. F/O. (320 dc)

Optional Border:

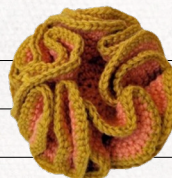
Using colour (B), connect new yarn with a slst, ch 1, sc in same st, sc in each st around.



PATTERN 2	COLOURS: 2
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Brain coral 2 (US)

Use colour (A) and (B) yarn.



Rnd 1.	With A, sc 6 in MR (6)
Rnd 2.	inc in each st around (12)
Rnd 3.	inc in each st around (24)
Rnd 4.	(sc 1, inc) * 12 (36)
Rnd 5.	(sc 2, inc) * 12 (48)
Rnd 6.	(sc 2, inc) * 16 (64)
Rnd 7.	(sc 3, inc) * 16 (80)
Rnd 8.	(sc 3, inc) * 20 (100)
Rnd 9.	(sc 3, inc) * 25 (125)
Rnd 10.	(sc 4, inc) * 25 (150)
Rnd 11.	(sc 4, inc) * 30 (180)
Rnd 12.	With B, (sc 5, inc) * 30 (210)

Finish with a slst into the next stitch. Cut a short yarn tail and weave the yarn tail behind the work.



PATTERN 3	COLOURS: 2
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Brain coral 3 (US)



Row 1.	ch 14, inc, 11 sc, 3 sc in 1, 11 sc, inc (29)
Row 2.	2 inc, 11 sc, 3 inc, 11 sc, 2 inc (36)
Row 3.	(sc, inc) * 2, 12 sc, (sc, inc) * 3, 13 sc, inc (42)
Row 4.	(2 sc, inc) * 2, 13 sc, inc, 3 sc, inc, 17 sc, inc (47)
Row 5.	(3 sc, inc) * 2, 14 sc, inc, 3 sc, inc, 19 sc, inc (52)
Row 6.	(4 sc, inc) * 2, 15 sc, inc, 3 sc, inc, 21 sc, inc (57)
Row 7.	(5 sc, inc) * 2, 16 sc, inc, 3 sc, inc, 23 sc, inc (62)
Row 8.	(6 sc, inc) * 2, 17 sc, inc, 3 sc, inc, 25 sc, inc (67)
Row 9.	(7 sc, inc) * 2, 18 sc, inc, 3 sc, inc, 27 sc, inc (72)
Row 10.	(8 sc, inc) * 2, 19 sc, inc, 3 sc, inc, 29 sc, inc (77)
Row 11.	(9 sc, inc) * 2, 20 sc, inc, 3 sc, inc, 31 sc, inc (82)
Row 12.	(10 sc, inc) * 2, 21 sc, inc, (3 sc, inc) * 2, 29 sc, inc (88)
Row 13–24.	88 sc
Row 25.	Row 25: (9 sc, dec) * 8 (80)
Row 26.	Row 26: 4 sc, (dec, 8 sc) * 7, dec, 4 sc (72)
Row 27.	(7 sc, dec) * 8 (64)
Row 28.	3 sc, (dec, 6 sc) * 7, dec, 3 sc (56)
Row 29.	(5 sc, dec) * 8 (48)
Row 30.	2 sc, (dec, 4 sc) * 7, dec, 2 sc (40)
Row 31.	(3 sc, dec) * 8 (32)
Row 32.	1 sc, (dec, 2 sc) * 7, dec, 1 sc (24)
Row 33.	(sc, dec) * 8 (16)
Row 34.	8 dec (8)

Cut the yarn leaving a tail 10 cm. Pull the hole by the front loops. Hide the tip of the thread inside the toy.

On the surface from rows 1 to 24, use a contrasting yarn colour to embroider the 'brain like' patterns.



PATTERN 4

COLOURS: 2



Sponges

Porifera

Sponges are simple, hole filled animals that filter huge amounts of seawater. They live attached to reef surfaces and help keep water clean.

Fun fact: Some can live for hundreds or thousands of years.

Tube Sponge (US)

Use colour (A) yarn.

Base:

Rnd 1.	With A, sc 6 in MR (6)
Rnd 2.	inc in each st around (12)
Rnd 3.	(sc 1, inc) * 6 (18)
Rnd 4.	(sc 2, inc) * 6 (24)
Rnd 5.	sc in each st around (24)
Rnd 6.	(sc 3, inc) * 6 (30)
Rnd 7.	(sc 4, inc) * 6 (36)
Rnd 8.	(sc 5, inc) * 6 (42)
Rnd 9.	Crochet into the BLO, sc in each st around (42)
Rnd 10.	Crochet into the BLO, sc in each st around (42)
Rnd 11.	(sc 5, dec) * 6 (36)
Rnd 12.	(sc 4, dec) * 6 (30)
Rnd 13.	(sc 3, dec) * 6 (24)
Rnd 14.	(sc 2, dec) * 6 (18)
Rnd 15.	(sc 1, dec) * 6 (12)

Finish with a slst into the next st. Cut a short yarn tail for sewing. Stuff the base with polyfill. Sew the opening closed by inserting the needle into the front loops of the remaining st and then pulling the yarn tail tight. Weave in the yarn tail.

Tubes:

Each of the six tubes will start in the same manner. The heights of the different tubes are achieved by the number of rounds crocheted after R12.

Use colour (A) and colour (B) yarn.

Rnd 1.	With A, sc 6 in MR (6)
Rnd 2.	inc in each st around (12)
Rnd 3.	(sc 2, inc) * 4 (16)
Rnd 4–8.	sc in each st around (16)
Rnd 9.	With B, sc in each st around (16)
Rnd 10.	Crochet into the BLO, sc in each st around (16)
Rnd 11.	With A, sc in each st around (16)
Rnd 12.	+ sc in each st around (16)

Tube A:

Rnd 13–40.	sc in each st around (16)
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Finish with a slst into the next stitch. Cut a long yarn tail for sewing.

Tube B:

Rnd 13–36.	sc in each st around (16)
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Finish with a slst into the next stitch. Cut a long yarn tail for sewing.

Tube C:

Rnd 13–30.	sc in each st around (16)
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Finish with a slst into the next stitch. Cut a long yarn tail for sewing.

Tube D:

Rnd 13–27.	sc in each st around (16)
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Finish with a slst into the next stitch. Cut a long yarn tail for sewing.

Tube E:

Rnd 13–24.	sc in each st around (16)
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Finish with a slst into the next stitch. Cut a long yarn tail for sewing.

Tube F:

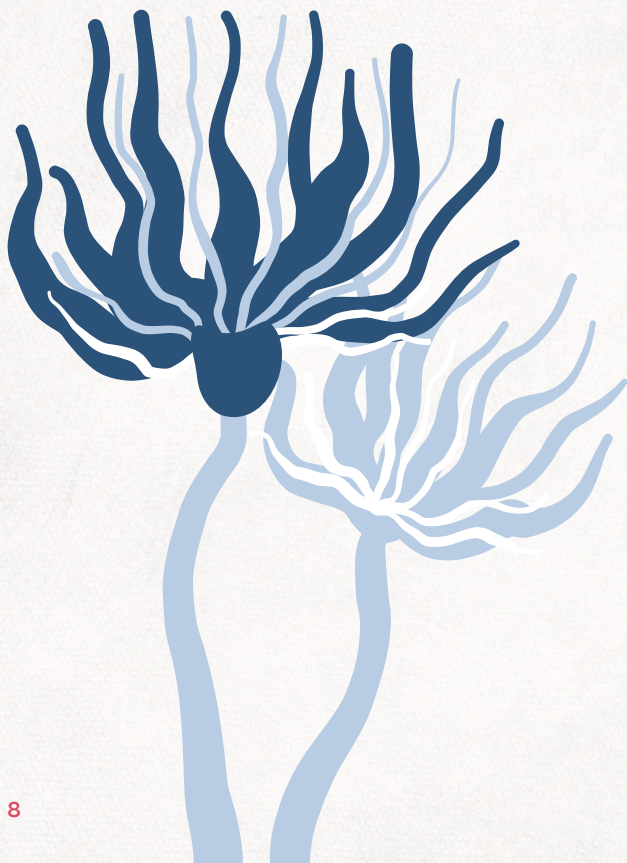
Rnd 13–20. sc in each st around (16)

Finish with a slst into the next stitch. Cut a long yarn tail for sewing.

Use the bottom of the crochet hook to push the top of the tube to invert it. The tube should fold at R10 where the piece was crocheted through the back loops.

Stuff the bottom of each tube with polyfill.

Sew the tubes to the base in a layout of your preference.



**PATTERN 5****COLOURS: 2****Sea squirt 1 (large) (US)**

Use colour (A) yarn.



Rnd 1.	6 sc into a MR (6)
Rnd 2.	double each st (12)
Rnd 3.	double every second st (18)
Rnd 4.	double every third st (24)
Rnd 5–8.	24 sc (24)
Rnd 9.	double every fourth st (30)
Rnd 10–14.	30 sc (30)
Rnd 15.	double every fifth st (36)
Rnd 16–21.	36 sc (36)
Rnd 22.	double every sixth st (42)
Rnd 23.	4 sc, 7 hdc, 14 sc, 7 hdc, 10 sc (42)
Rnd 24–25.	42 sc (42)
Rnd 26.	4 sc, 7 hdc, 4 sc, (sc2)*3, 4 sc, 7 hdc, 4 sc, (sc2)*3 (36)
Rnd 27.	4 sc, fold the sea squirt so that the hdc are on top of each other. In the following st and in the opposite st (seen from the needle in the 24 st) and crochet a sc through both layers. Now crochet another 4 sc through both layers. Crochet slst in back layer, F/O. Now you have two holes with 12 sc and with 14 sc.

Use colour (B) yarn.

Rnd 28.	Start at the inner end of each hole. Crochet 12 sc in the small hole and 14 sc in the big hole. Close each with a sl st and F/O. Leave the thread end long (12/14). Connect both holes with ch st.
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**PATTERN 6****COLOURS: 2****Sea squirts 2 (medium) (US)**

Use colour (A) yarn.

Rnd 1.	6 sc into a MR (6)
Rnd 2.	double each stitch (12)
Rnd 3.	double every second stitch (18)
Rnd 4.	double every third stitch (24)
Rnd 5–9.	24 sc (24)
Rnd 10.	double every fourth stitch (30)
Rnd 11–13.	30 sc (30)
Rnd 14.	double every fifth stitch (36)
Rnd 15–17.	36 sc (36)
Rnd 18.	double every sixth stitch (42)
Rnd 19.	4 sc, 7 hdc, 14 sc, 7 hdc, 10 sc (42)
Rnd 20–21.	rep Rnd 19 (42)
Rnd 22.	4 sc, 7 hdc, 4 sc, (sc2)*3, 4 sc, 7 hdc, 4 sc, (sc2)*3 (36)
Rnd 23.	4 sc, fold the sea squirt so that the hdc are on top of each other. In the following stitch and in the opposite stitch (seen from the needle in the 24 stitch) and crochet a sc through both layers. Now crochet another 4 sc through both layers. Crochet slst in back layer, F/O. Now you have two holes with 12 sc and with 14 sc. Change to the white yarn.
Rnd 24.	Start at the inner end of each hole. Crochet 12 sc in the small hole and 14 sc in the big hole. Close each with a sl st and F/O. Leave the thread end long (12/14). Connect both holes with ch st. Embroider two st next to each other.



PATTERN 7	COLOURS: 2
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Sea squirt 3 (medium small) (US)

Use colour (A) yarn.

Rnd 1.	6 sc into a MR (6)
Rnd 2.	double each stitch (12)
Rnd 3.	double every second stitch (18)
Rnd 4.	double every third stitch (24)
Rnd 5–6.	24 sc (24)
Rnd 7.	double every fourth stitch (30)
Rnd 8–10.	30 sc (30)
Rnd 11.	double every fifth stitch (36)
Rnd 12–14.	sc (36)
Rnd 15.	double every sixth stitch (42)
Rnd 16.	4 sc, 7 hdc, 14 sc, 7 hdc, 10 sc (42)
Rnd 17–18.	rep Rnd 16 (42)
Rnd 19.	4 sc, 7 hdc, 4 sc, (sc2)*3, 4 sc, 7 hdc, 4 sc, (sc2)*3 (36)
Rnd 20.	4 sc, fold the sea squirt so that the hdc are on top of each other. In the following stitch and in the opposite stitch (seen from the needle in the 24 stitch) and crochet a sc through both layers. Now crochet another 4 sc through both layers. Crochet slst in back layer, F/O. Now you have two holes with 12 sc and with 14 sc.

Change to the Colour (B) yarn.

Rnd 21.	Start at the inner end of each hole. Crochet 12 sc in the small hole and 14 sc in the big hole.
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Close each with a sl st and F/O. Leave the thread end long (12/14). Connect both holes with ch st. Embroider two stitches next to each other.

**PATTERN 8****COLOURS: 2****Sea squirt 4 (small) (US)**

Use colour (A) yarn.

Rnd 1.	6 sc into a MR (6)
Rnd 2.	double each stitch (12)
Rnd 3.	double every second stitch (18)
Rnd 4.	double every third stitch (24)
Rnd 5–6.	24 sc (24)
Rnd 7.	double every fourth stitch (30)
Rnd 8–10.	30 sc (30)
Rnd 11.	double every fifth stitch (36)
Rnd 12–14.	sc (36)
Rnd 15.	double every sixth stitch (42)
Rnd 16.	sc, 7 hdc, 14 sc, 7 hdc, 10 sc (42)
Rnd 17–18.	rep Rnd 16 (42)
Rnd 19.	4 sc, 7 hdc, 4 sc, (sc2) * 3, 4 sc, 7 hdc, 4 sc, (sc2) * 3 (36)
Rnd 20.	4 sc, fold the sea squirt so that the hdc are on top of each other. In the following stitch and in the opposite stitch (seen from the needle in the 24 stitch) and crochet a sc through both layers. Now crochet another 4 sc through both layers. Crochet slst in back layer, F/O. Now you have two holes with 12 sc and with 14 sc.

Change to the Colour (B) yarn.

Rnd 21	Start at the inner end of each hole. Crochet 12 sc in the small hole and 14 sc in the big hole. Close each with a sl st and F/O. Leave the thread end long (12/14). Connect both holes with ch st. Embroider two st next to each other.
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PATTERN 9

COLOURS: 2



Sea Urchins

Echinoidea

Sea urchins graze on algae and help keep reefs healthy. They live across rocky and coral surfaces.

Fun fact: Sea urchins can move each spine independently.

Sea urchin 1 (US)

Main body:

Ch4, join with sl.st. to make a ring (or use MR).

Rnd 1.	10sc into ring (DO NOT JOIN RING).
Rnd 2.	BLO 2sc in every st around, place marker.
Rnd 3.	BLO *2hdc in next st, 1hdc in next st.**; repeat from * to ** around, place marker on last stitch.
Rnd 4.	BLO *2dc in next st, 1dc in each of next 2 sts.**; repeat from * to ** around, place marker on last stitch.
Rnd 5.	BLO *2dc in next st., 1dc in each of next 4 sts.**; repeat from * to ** around, place marker on last stitch.
Rnd 6.	BLO 1dc in every st around, place marker on last stitch.
Rnd 7.	repeat round 6, place marker on last stitch.
Rnd 8.	BLO, 1hdc in each of next 2 sts., 1sc in each of the remaining sts around, place marker on last stitch.
Rnd 9.	(not in back loop from now on) *1sc.dec, 1sc in each of next 5 sts.**; repeat from *to** around, place marker on last stitch.
Rnd 10.	*1sc.dec, 1sc in each of next 3 sts.**; repeat from *to** around.
Rnd 11.	repeat round 10.

Now is a good time to stuff the ball.

Rnd 12. (a non-stop spiral to close) *1sc.dec, 1sc in each of next 3 sts**, repeat *to** until there are only 6 or 7 stitches left.

Leave a 6" tail, cut yarn, thread onto darning needle and weave in and out of the last stitches, pull tight to close hole.

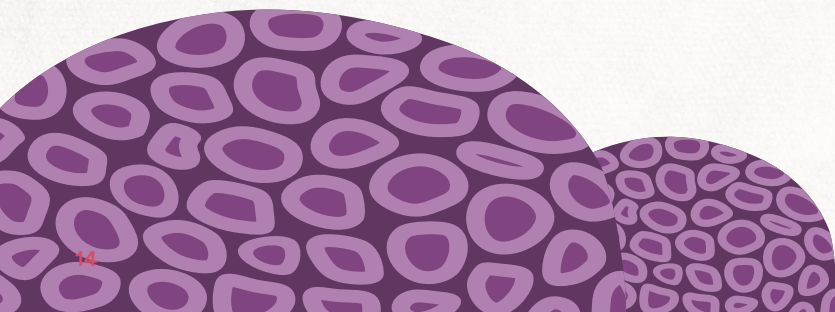
The frill:

Change yarn and hook size if necessary.

Working from the top centre and into every exposed Front Loop on the urchin, make 3 or 4sc into every loop.

The number of st needed will vary depending on the thickness of the yarn/thread or how much of the urchin body that you want to show through.

Make 3sc in each st of the 1st 2 rounds and then st 4sc in each t on the other rounds to the end.

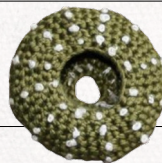




PATTERN 10	COLOURS: 2
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Sea urchin 2 (US)

Use colour (A).



Rnd 1.	12 ch
Rnd 2.	Rnd 2: join to form a ring working 2 sc in first ch, 2 sc each in next 11 ch (24 sts)
Rnd 3.	24 sc (24 sts)
Rnd 4.	3 sc, 1 inc crochet 6 times (30 sts)
Rnd 5.	2 sc, 1 inc, 2 sc crochet 6 times (36 sts)
Rnd 6.	*1 inc, 5 sc * crochet 6 times (42 sts)
Rnd 7.	5 sc, 1 inc, 1 sc crochet 6 times (48)
Rnd 8.	11 sc, 1 inc crochet 4 times (52 sts)
Rnd 9.	52 sc (52 sts)
Rnd 10.	6 sc, 1 dec, 5 sc crochet 4 times (48 sts)
Rnd 11.	5 sc, 1 dec, 1 sc crochet 6 times (42 sts)
Rnd 12.	*1 dec, 5 sc * crochet 6 times (36 sts)
Rnd 13.	2 sc, 1 dec 2 sc crochet 6 times (30 sts)
Rnd 14.	3 sc, 1 dec crochet 6 times (24 sts)

F/O, weave in the ends on right side. Turn the urchin so you look on the wrong side. Use colour (B) to stitch french knots. Make 12 lines of french knots, which run radial from the top to the bottom.

PATTERN 11

COLOURS: 2



Sea urchin 3 (US)

In colour (A), work in spiral rounds (do not turn, do not join). Use a stitch marker to mark the beginning of each round. Move the marker up each time you start a new round.

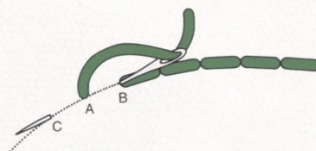


Rnd 1.	Make a MR. 1 ch (does not count as st), 12 sc in the MR (12 sts)
Rnd 2.	12 inc (24 sts)
Rnd 3.	24 sc (24 sts)
Rnd 4.	3 sc, 1 inc crochet 6 times (30 sts)
Rnd 5.	2 sc, 1 inc, 2 sc crochet 6 times (36 sts)
Rnd 6.	*1 inc, 5 sc * crochet 6 times (42 sts)
Rnd 7.	5 sc, 1 inc, 1 sc crochet 6 times (48)
Rnd 8.	48 sc (48 sts)
Rnd 9.	5 sc, 1 dec, 1 sc crochet 6 times (42 sts)
Rnd 10.	*1 dec, 5 sc * crochet 6 times (36 sts)
Rnd 11.	2 sc, 1 dec 2 sc crochet 6 times (30 sts)
Rnd 12.	3 sc, 1 dec crochet 6 times (24 sts)
Rnd 13.	1 sc, 1 dec, 1 sc crochet 6 times (18 sts)

F/O, weave in the ends on right side. Turn the urchin so you look on the wrong side. Use colour (B) yarn to make backstitches into your urchin. Make 5 double lines of backstitches, which run radial from the top to the bottom. Use the photographs as a guide.

Backstitch:

Work your individual stitches from the right to left (for right-handed people). Come up at A, take a small backward stitch, go down at B, and emerge at C. Always move the needle forward beneath the crochet piece and come up one stitch length ahead, ready to take another stitch.





PATTERN 12

COLOURS: 2



Six-Tentacled Corals & Anemones

Hexacorallia

Members of this group have body parts in sets of six and include many corals and anemones. They are essential to reef diversity.

Fun fact: Clownfish anemones belong to this group.

Sea anemone 1 (US)

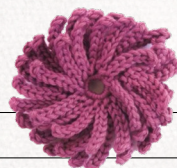
Using colour (A) yarn, make a slip ring.

Rnd 1.	1 ch, 7 sc in ring, pull end to close ring, ss in 1ch (8)
Rnd 2.	1 ch, 1 sc in st below, 2 sc in each of next 7 sts, ss in 1 ch (16)
Rnd 3.	1 ch, 2 sc in next st, [1 sc in next st, 2 sc in next st] 7 times, ss in 1 ch. 24 sts.
Rnd 4.	1 ch, 1 sc in each of next 2 sts, 2 sc in next st, [1 sc in each of next 3 sts, 2sc in next st] 5 times, ss in 1 ch. 30 sts.
Rnd 5.	1 ch, 1 sc in each of next 3 sts, 2 sc in next st, [1 sc in each of next 4 sts, 2sc in next st] 5 times, ss in 1 ch. 36 sts.
Rnd 6.	1 ch, sc dec in next 2 sts, [1 sc in next st, sc dec in next 2 sts] 11 times, ss in 1 ch. 24 sts.
Rnd 7.	1 ch, 1 sc in each st, ss in 1 ch.
Rnd 8.	1 ch, 1 sc in next st, sc dec in next 2 sts, [1 sc in each of next 2 sts, sc dec in next 2 sts] 5 times, ss in 1 ch. 18 sts.
Rnd 9–12.	As 7th round, working last ss with colour (B) yarn. Continue with colour (B) yarn.
Rnd 13.	1 ch, 2 sc in st below, 3sc in each of next 17sts, ss in 1ch. 54 sts.
Rnd 14.	* 4 ch, miss 1ch, ss in next ch, 1sc in next ch, 1dc in next ch, ss in first st of next group of 3 sts, repeat from *, ending ss in first ch of 4ch.

F/O.

PATTERN 13**COLOURS: 1****Chysanthemum coral (US)**

Make 6 ch and join with sl st to form a ring.



Rnd 1. ch 1, 15 sc into ring, sl st into first sc (15)

Front Petal Layer:

Rnd 2. FLO (ch 8, sl st into 2nd ch from hook, sl st in next 6 ch, sl st into next sc)
* 14, ch 8, sl st into 2nd ch from hook, sl st in next 6 ch, sl st into back of
next sc (15 petals)

Back Petal Layer:

Rnd 3. BLO ch 1, 2 sc in each st around, sl st to first sc (30)

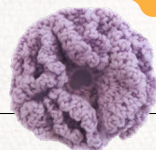
Rnd 4. (ch 8, sl st into 2nd ch from hook, sl st in next 6 ch, sl st into next sc) * 30
(30 petals)



PATTERN 14	COLOURS: 1
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Carnation coral (US)

Make 6 ch and join with sl st to form a ring.



Rnd 1.	1 ch, 15 sc into ring, sl st into first sc. 15 sc.
Rnd 2.	3 ch (counts as 1 dc), 2 dc into same sc, 3 dc into each of next 14 sc, sl st into 3rd of 3 ch at beg of rnd. 45 tr.
Rnd 3.	3 ch (counts as 1 dc), 2 dc into same dc, 3 dc into each of next 44 dc, sl st into 3rd of 3 ch at beg of rnd. (135 dc)
Rnd 4.	*4 ch, sl st into next dc; rep from * to end.



**PATTERN 15****COLOURS: 2****Sea anemone 2 (US)****Mouth:**

Rnd 1.	With colour (A), sc 6 in MR (6)
Rnd 2.	(inc, inc, sc 1) 2 times (10)
Rnd 3.	sc in each st around (10)
Rnd 4.	(sc 4, inc) 2 times (12)
Rnd 5.	Crochet in FLO, (sc 3, inc) 3 times (15)
Rnd 6.	(sc 4, inc) 3 times (18)

Tentacles:

Rnd 7.	FLO Crochet in FLO, [sl st 1 into the next st, ch 8, skip first ch, sl st 5, sc 2 along the ch, sl st 1 into the next st] 9 times (9 tentacles) — BLO Crochet into the BLO of the st in R6, (sc 2, inc) 6 times (24)
Rnd 8.	FLO Crochet in FLO, [sl st 1 into the next st, ch 9, skip first ch, sl st 6, sc 2 along the ch, sl st 1 into the next st] 12 times (12 tentacles) — BLO Crochet into the BLO of the st in R7, (sc 3, inc) 6 times (30)
Rnd 9.	FLO Crochet in FLO, [sl st 1 into the next st, ch 11, skip first ch, sl st 8, sc 2 along the ch, sl st 1 into the next st] 15 times (15 tentacles) — BLO Crochet into the BLO of the st in R8, sc in each st around (30)

Base:

Rnd 10.	(FLO): In FLO, (sl st in next st, ch 11, skip 1st ch, sl st 8, sc 2 along ch, sl st in next st) * 15 (15 tentacles) — (BLO): Switch to colour (B), in BLO, sc in each st around (30)
Rnd 11.	sc in each st around (30)
Rnd 12.	(sc 4, inc) * 6 (36)
Rnd 13.	sc in each st around (36)
Rnd 14.	(sc 1, inc) * 18 (54)
Rnd 15.	sc in each st around (54)
Rnd 16.	(sc 1, dec) * 18 (36)
Rnd 17.	Rnd 17: (sc 4, dec) * 6 (30)

Finish with a sl st into the next st, cut yarn leaving a short tail and weave behind work.



PATTERN 16	COLOURS: 2
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Sea anemone 3 (US)

Use colour (A)

4 sc into a MR and tighten the Ring.



Rnd 1.	(2 sc into the following st)*4 (8)
Rnd 2.	8 sc (8)
Rnd 3.	(2 sc into the following st) * 8 (16)
Rnd 4.	16 sc (16)
Rnd 5.	(2 sc into the following st, sc) * 8 (24)
Rnd 6-7.	24 sc (24)
Rnd 8.	(sc2, sc) *8 (16)
Rnd 9.	16 sc (16)
Rnd 10.	(2 sc into the following st, sc) * 8 (24)

Cap:

Use colour (A)

Rnd 11.	(2 sc into the following st, 2 sc) * 8 (32)
Rnd 12.	(2 sc into the following st, 3 sc) * 8 (40)
Rnd 13.	(2 sc into the following st, 4 sc) * 8 (48)
Rnd 14.	(2 sc into the following st, 5 sc) * 8 (56)
Rnd 15.	(2 sc into the following st, 6 sc) * 8 (72)
Rnd 16.	(2 sc into the following st, 7 sc) * 8 (72)
Rnd 17.	72 sc (72)
Rnd 18.	(2 sc into the following st, 8 sc) * 8 (80)
Rnd 19.	80 sc (80)
Rnd 20.	(2 sc into the following st, 9 sc) * 8 (88)
Rnd 21.	88 sc, F/O (88)

Put the mouth in a little (see picture 1).



PATTERN 17

COLOURS: 1



Flowerpot Coral

Goniopora

Goniopora has long, flower like tentacles that sway like underwater daisies. It prefers sheltered reef areas.

Fun fact: Each polyp has 24 tentacles, which is more than other corals, giving it an extra flowery look.

Flowerpot 1 (US)

Base Stalk:

ch 8. join with ss into first ch to form ring.

The number of chains determines the diameter/thickness of your stalk.

Working in a spiral, work 1sc in each ch, and then in each sc, around and around and around until you reach the height you'd like. This is the step that determines the height of each flowerpot coral stalk.

When you reach the height you want, then do this for last round of base – 2sc in each sc for one round.

Now, to "level off" this round, ss in next sc, F/O colour (A) and join using colour (B) yarn.

Central part:

Rnd 1.	ch 2 (counts as 1dc), 1dc in same st, 1dc in next sc around, join with ss to first dc of this round. (To keep the flower rows straight, they are worked in rounds rather than in a spiral which is why each round is joined with a ss.)
Row 2.	ch 2, 2dc in each dc join with ss to first dc
Row 3.	ch 2 (counts as 1dc), 3dc in same st, 4dc in each dc join with ss

F/O and weave in end.

Center Cap:

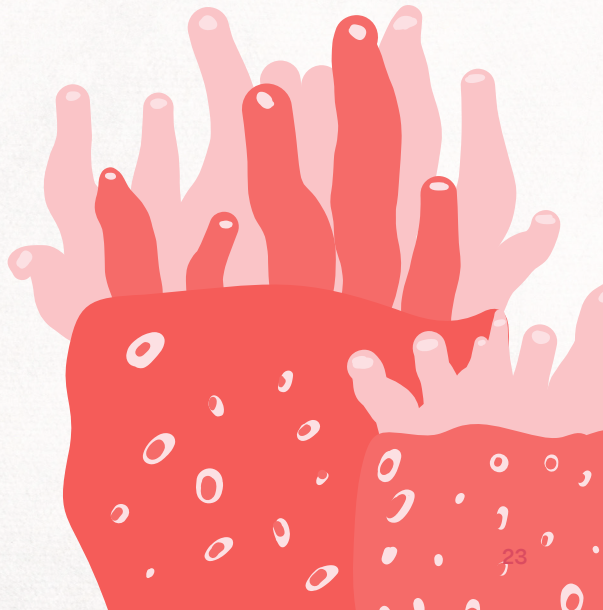
ch 3, ss to first ch to form ring

Row 1. 5sc in to the ring, ss to join

Row 2. 2sc in each sc join with ss

Row 3. repeat row 2

F/O. You'll have a little cup at this point. Weave in your ends and then take a bit of hot glue to glue this cap into the tube. If your yarn isn't stiff enough, add some fiberfill to the tube.





PATTERN 18	COLOURS: 1
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Flowerpot 2 (US)



Top:

4sc into a MR

Rnd 1.	(inc) * 4 [8 st].
Rnd 2.	(sc, inc) * 6 [12 st].
Rnd 3.	(2 sc, inc) * 4 [16 st].
Rnd 4.	(3 sc, inc) * 4 [20 st].
Rnd 5.	(4 sc, inc) * 4 [24 st].
Rnd 6.	(5 sc, inc) * 4 [28 st].
Rnd 7.	(6 sc, inc) * 4 [32 st].
Rnd 8.	slst, F/O [1 st, 31 st left].

Bottom:

6 sc into a MR

Rnd 1.	(inc)*6 [12 st].
Rnd 2.	((inc)*2), sc)*4 [20 st].
Rnd 3.	(inc, 2 sc)*7 [27 st].
Rnd 4.	(5 sc, inc)*4, 2 sc, inc [32 st]

Tentacles (make 12)

Leave a long thread beginning. With this you can later sew the tentacles on the top side. 8 ch, connect them to form a ring. From now on crochet in Rd.

Rnd 1-4.	8 sc [8 st].
Rnd 5.	(dec, 2 sc)*2 [6 st].
Rnd 6-7.	6 sc [6 st].
Rnd 8.	(dec, sc)*2 [4 st].
Rnd 9.	4 sc [4 st].
Rnd 10.	(inc)*4 [8 st].
Rnd 11.	(sc, 3 ch, into the second st from the Nd a sc, sc)*7, sc, 3 ch, into the second st from the Nd a sc, slst, F/O [8 petal].

Sew tentacles onto the top:

Sew the 12 tentacles on top. Start with the 4 inner tentacles and then sew the 8 outer tentacles onto the top. Make sure, that the individual tentacles are regularly spaced from one another.

Finish:

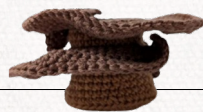
Now place the underside with the wrong side (not the pretty side) on the underside of the top. Now crochet the top and bottom together by stitching through both layers.



PATTERN 19	COLOURS: 2
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Table coral (US)

Use colour (A), and colour (B) yarn.



Rnd 1.	With colour A, sc 6 in MR (6)
Rnd 2.	inc in each st around (12)
Rnd 3.	(sc 1, inc) 6 times (18)
Rnd 4.	(sc 2, inc) 6 times (24)
Rnd 5.	(sc 3, inc) 6 times (30)
Rnd 6.	(sc 4, inc) 6 times (36)
Rnd 7.	(sc 5, inc) 6 times (42)
Rnd 8.	Crochet into the BLO, (sc 5, dec) 6 times (36)
Rnd 9.	sc in each st around (36)
Rnd 10.	(sc 4, dec) 6 times (30)
Rnd 11–18.	sc in each st around (30)
Rnd 19.	With colour B, sc in each st around (30)
Rnd 20.	Crochet into the BLO, (sc 3, dec) 6 times (24)
Rnd 21.	sc 2, dec) 6 times (18)
Rnd 22.	(sc 1, dec) 6 times (12)

Top disk:

Rnd 1.	Skip first ch from hook, inc, inc, sc 26, inc, inc, ch 1 and turn (34)
Rnd 2.	inc, inc, inc, sc 28, inc, inc, inc, ch 1 and turn (40)
Rnd 3.	(sc 1, inc) 20 times, ch 1 and turn (60)
Rnd 4.	(sc 2, inc) 20 times, ch 1 and turn (80)
Rnd 5.	sc 25, hdc 10, dc 10, hdc 10, sc 25 (80)
Rnd 6.	sc 27, hdc 8, dc 10, hdc 8, sc 27 (80)

Yarn over and draw the yarn through the loop on the hook to F/O. Cut a long yarn tail for sewing.



PATTERN 20	COLOURS: 2
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Sea Stars

Asteroidea

Sea stars help keep reef ecosystems balanced. They live on rocks, sand, and coral surfaces.

Fun fact: Many can regrow lost arms.

Starfish 1 (small) (US)

Work in rounds (join with a sl st and ch1 at the end of each row) otherwise instructed work in rounds (join with a sl st and ch1 at the end of each row) otherwise instructed

Rnd 1.	start working with rust yarn, 5 sc in a mr (5)
Rnd 2.	inc around (10)
Rnd 3.	*1 sc, 1 sc inc*, repeat ** around (15)
Rnd 4.	*2 sc, 1 sc inc*, repeat ** around (20)
Rnd 5.	*3 sc, 1 sc inc*, repeat ** around (25)
Rnd 6.	start working in rows, 5 sc (5); ch1 and turn
Rnd 7.	sc even (5); ch 1 and turn
Rnd 8.	2 sc, 1 sc dec, 1 sc (4); ch 1 and turn
Rnd 9.	sc even (4); ch 1 and turn
Rnd 10.	1 sc, 1 sc dec, 1 sc (3); ch 1 and turn
Rnd 11.	sc even (3); ch 1 and turn
Rnd 12.	1 sc, 1 sc dec (2); ch 1 and turn
Rnd 13.	sc even (2); ch 1 and turn
Rnd 14.	1 sc dec (1); F/O and cut the yarn

Use colour (A) yarn, make two.

Join the yarn with a sl st to st #6 of the rnd #5.

Repeat from rnd # 6 to rnd # 14, 4 times.

Once you have crocheted the second panel, place the two panels one above the other, matching up all sides.

Sew the panels together: join the yarn through the two panels with a sl st, ch 1 and single crochet around the edges. Work 3 sc in the st at the top of each star's leg. Stuff lightly as you sew the two panels together.

Make little French knots with colour (B) yarn on one side of the sea star across the length of each leg.





PATTERN 21	COLOURS: 2
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Starfish 2 (large) (US)

Use colour (A) and (B) yarn, make two.



Rnd 1.	Use with colour (A) yarn, 5 sc in a MR (5)
Rnd 2.	sc inc around (10)
Rnd 3.	*1 sc, 1 sc inc*, repeat ** around (15) (sc 1, inc) * 5 (15) same meaning?
Rnd 4.	*2 sc, 1 sc inc*, repeat ** around (20) (sc 2, inc) * 5 (20)
Rnd 5.	*3 sc, 1 sc inc*, repeat ** around (25) (sc 3, inc) * 5 (25)

Begin working in rows:

Row 6.	5 sc (5); ch1 and turn
Row 7.	sc even (5); ch 1 and turn
Row 8.	2 sc, 1 sc dec, 1 sc (4); ch 1 and turn
Row 9–10.	sc even (4); ch 1 and turn
Row 11.	1 sc, 1 sc dec, 1 sc (3); ch 1 and turn
Row 12–13.	sc even (3); ch 1 and turn
Row 14.	1 sc, 1 sc dec (2); ch 1 and turn
Row 15.	sc even (2); ch 1 and turn
Row 16.	1 sc dec (1); F/O and cut the yarn

Join the yarn with a sl st to st #6 of the rnd #5.

Repeat from rnd # 6 to rnd # 16, 4 times.

Once you have crocheted the second panel, place the two panels one above the other, matching up all sides.

Sew the panels together: join colour (A) yarn through the two panels with a sl st, ch 1 and single crochet around the edges. Work 3 sc in the st at the top of each star's leg. Stuff lightly as you sew the two panels together. Make little French knots (with colour (B) yarn) on one side of the sea star across the length of each leg.

PATTERN 22

COLOURS: 1



Stony Corals

Scleractinia

These reef-building corals create the hard framework of tropical reefs. They thrive in sunny, shallow water.

Fun fact: Each tiny coral polyp builds its own limestone cup.

Staghorn coral (US)

Part 1: 5 PCs

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4–5.	sc, sl st, F/O

Part 2: 5 PCs:

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4.	5 sc
Row 5.	inc, 4 sc, sl st (6), F/O.

Part 3: 6 PCs

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4.	5 sc
Row 5.	inc, 4 sc (6)
Row 6.	6 sc, sl st, F/O.

Part 4: 1 PC

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4.	5 sc
Row 5.	inc, 4 sc (6)
Row 6.	6 sc
Row 7.	inc, 5 sc, sl st (7), F/O.

Part 5: 1 PC

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4.	5 sc
Row 5.	inc, 4 sc (6)
Row 6.	6 sc
Row 7.	inc, 5 sc (7)
Row 8.	7 sc, sl st, F/O.

Part 6: 4 PCs

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4–6.	5 sc
Row 7.	inc, 4 sc (6)
Row 8–9.	6 sc
Row 10.	2 join sc with part 1, 4 sc on part 6 (7)
Row 11.	7 sc (3 sc on part 1 starting with the arrow, 4 sc on part 6)
Row 12.	5 sc, 2 join sc with part 2 (9)
Row 13.	9 sc (5 sc on part N° 6, 4 sc on part 2)
Row 14.	9 sc
Row 15.	3 sc, 2 join sc with part 3, 4 sc (11)
Row 16.	11 sc (3 sc on part 6, 4 sc on part 3, 4 sc on part 6)
Row 17–19.	11 sc, sl st, F/O



Central part:

Row 1.	4 sc in MC
Row 2.	4 sc
Row 3.	inc, 3 sc (5)
Row 4–6.	5 sc
Row 7.	inc, 4 sc (6)
Row 8–9.	6 sc
Row 10.	2 join sc with part 1, 4 sc (7)
Row 11.	7 sc (3 sc on part 1, 4 sc on central part)
Row 12.	5 sc, 2 join sc with part 2 (9)
Row 13.	9 sc (5 sc on central part, 4 sc on part 2)
Row 14.	9 sc
Row 15.	3 sc, 2 join sc with part N° 3, 4 sc (11)
Row 16.	11 sc (3 sc on central part, 4 sc on part 3, 4 sc on central part)
Row 17.	3 join sc with part 3, 8 sc (11)
Row 18.	11 sc (3 sc on part 3, 8 sc on central part)
Row 19.	7 sc, 3 join sc with part 4, 1 sc (12)
Row 20.	12 sc (7 sc on central part, 4 sc on part 4, 1 sc on central part)
Row 21.	3 sc, 3 join sc with part 5, 6 sc (13)
Row 22.	3 sc on central part, 4 sc on part 5, 6 sc on central part (13)
Row 23–28.	13 sc
Row 29.	(3 join sc with part 6) * 4, 1 sc (33)

Row 30. 7 sc on part № 6, pull loop through the next single crochet, pull loop between the branches, pull loop through the first single crochet of branch on the left, crochet all 4 loops from the hook at once, 6 sc on the next part № 6, pull loop through the next single crochet, pull loop between the branches, pull loop through the first single crochet of branch on the left, crochet all 4 loops from the hook at once, 6 sc on the next part № 6, pull loop through the next single crochet, pull loop between the branches, pull loop through the first single crochet of branch on the left, crochet all 4 loops from the hook at once, 6 sc on the next part № 6, pull loop through the next single crochet, pull loop between the branches, pull loop through the first single crochet of branch on the left, crochet all 4 loops from the hook at once (28)

Row 31. 28 sc

Trace the base around the perimeter on cardboard. Cut a circle out of thick cardboard – it will give the coral stability.

Row 32. 3 sc, inc) * 7 (35)

Row 33. 35 sc, F/O (for those who decided to sew a felt bottom).

Cut a circle of felt with an allowance of 1–2 mm. Place a pebble or granules into the base for weight, put cardboard, then sew the bottom with the blanket st.

If you don't have felt, you can crochet the bottom. A felt bottom however gives greater stability. So, to crochet the bottom:

Row 34. (3 sc, dec) * 7 (28)

If desired, insert a wire frame. You can add a weighting stone to give stability. Insert a thick cardboard circle. Place a little padding polyester between the cardboard and the frame.

Row 35. (2 sc, dec) * 7 (21)

Row 36. (1 sc, dec) * 7 (14)

Row 37. 7 dec = 7, pull the hole by the front loops. Straighten the coral branches into the desired shape.

Middle disk:

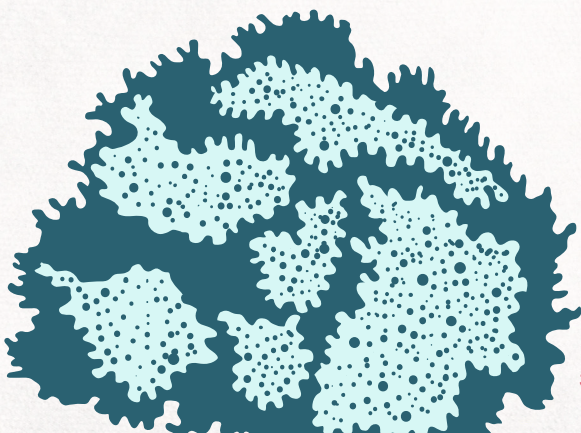
With colour (B), ch 26.

Rnd 1.	Skip first ch from hook, inc, sc 23, inc, ch 1 and turn (27)
Rnd 2.	(sc 2, inc) 9 times, ch 1 and turn (36)
Rnd 3.	(sc 3, inc) 9 times, ch 1 and turn (45)
Rnd 4.	(sc 4, inc) 9 times, ch 1 and turn (54)
Rnd 5.	sc 15, hdc 8, dc 8, hdc 8, sc 15, ch 1 and turn (54)
Rnd 6.	(sc 5, inc) 9 times, ch 1 and turn (63)
Rnd 7.	sc 16, hdc 10, dc 11, hdc 10, sc 16 (63)

Assembly:

Sew the top disk along the top edge of the base. Use the front loops of R20 on the base as a guide.

The two ends of the top disk will overlap as shown. Sew the middle disk near the center (around R17) of the base.





PATTERN 23	COLOURS: 1
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Cat's Paw Coral

Stylophora

Stylophora grows chunky branches that resemble a cat's paw. It lives in shallow, wave exposed areas.

Fun fact: It often appears in bright pinks and purples.

Stylophora (US)

Crochet in a spiral

Part 1

Row 1.	10 sc in MC
Row 2–5.	(4 rows): 10 sc, sl st, F/O

Part 2

Row 1.	10 sc in MC
Row 2.	(4 rows): 10 sc
Row 3.	3 join sc with the part 1, 6 sc, dec (one loop from the part 1, second loop from the part 2), 5 sc, dec (one loop from the part 2, the second loop immediately after joining) = 12
Row 7–10.	(4 rows): 12 sc, sl st, F/O.

Part 3

Row 1.	10 sc in MC Row 2–10 (9 rows): 10 sc
Row 11.	3 join sc with the part 2, 6 sc (the first loop is indicated by an arrow), dec (one front loop from part 2, the second front loop immediately after joining), 7 sc on part 3, dec (the front loop from the last sc of the row and the front loop from the first sc of the row) (14)

Make 8–12 pieces. Combine them at the bottom in random order. Use an overlook stitch, joining 3 to 5 pairs of stitches.



PATTERN 24

COLOURS: 1



Bubble coral

Plerogyra sinuosa

Bubble coral has soft bubbles that inflate by day and deflate at night. It lives in low light, protected areas.

Fun fact: Its bubbles act like tiny solar panels.

Bubble coral (US)

Make a slip ring.

Rnd 1.	6 sc in ring.
Rnd 2.	2 sc in next st, 6 sc in next st] × 3 times (24 sts)
Rnd 3.	sc, 6inc, 5dec, sc, 6inc, sc, 5dec, sc, 6inc, sc, 5dec, sc. (27 sts)
Rnd 4.	6inc, 5dec, sc, 6inc, sc, 5dec, sc, 6inc, sc, 6inc, 5dec, sc, 6inc, sc, 6inc. (45 sts)
Rnd 5.	5dec, 2 sc, 6inc, 5dec, sc, 6inc, 2 sc, 5dec, sc, 6inc, 5dec, 3 sc, 5dec, sc, 6inc, 5 dec, sc. (41 sts)
Rnd 6.	6inc, sc, 6inc, 5dec, 2sc, 6inc, 5dec, 2 sc, 6inc, 2 sc, 5dec, sc, 6inc, sc, 6inc, 4sc, 5dec, 3sc. (55 sts)
Rnd 7.	5dec, 2 sc, 5dec, 4 sc, 5dec, 4sc, 5 dec, 5 sc, 5dec, 2 sc, 5dec, 6 sc, 2 ss. (31 sts)

Notes:

5dec = sc dec over the next 5 sts.

6inc = make 6 sc in next st.

PATTERN 25

COLOURS: 1



Orange Cup Coral

Balanophyllia bonaespei

This small, bright orange coral forms solitary cups. It lives on shaded reef walls.

Fun fact: It can survive in darker places than most corals as it does not rely on sunlight for photosynthesis.

Cup coral

Base:

Make the tube/column first. Start at the bottom of the tube and work up.

ch 8, ss in first ch to form ring.

ch 1, working in a spiral (don't join, just keep stitching around and around), work 1sc in each stitch until desired height of tube is reached.

When you've reached the height you want, stop, leaving a loop.

Tentacles:

ss in next sc, pull a loop of yarn up very high, the height of your hook or even higher.

Hold tight where your last stitch is with your left thumb and forefinger.

Twist the yarn to the point where it folds back on itself and that will make the tentacles. Take your hook with the long loop of yarn on it and make large, forward, circles with your hand moving the hook end while holding steady the base end of that loop, like your right hand is actually working a bicycle pedal.

Repeat this movement 15–25 times. You'll see the yarn start to twist and as you keep circling, it will start to twist back on itself making the tentacle. Once loop is twisted, ss back in same stitch (one tentacle made), repeat in same stitch (you want two tentacles per sc). sc in next stitch, make two tentacles in same stitch repeat around how long your original loop is, combined with how many rotation/twists you make determines the size of your tentacle. Higher loops make longer fringe, lots of twists make a tighter fringe.

F/O and weave ends.



PATTERN 26	COLOURS: 1
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Sand dollar (US)

Do not turn, do not join.



Rnd 1.	Start with MR. ch 1 (does not count as a st), 6 sc in MR (6)
Rnd 2.	inc in each st around (12)
Rnd 3.	(sc 1, inc) * 6 (18)
Rnd 4.	(sc 1, inc, sc 1) * 6 (24)
Rnd 5.	(sc 3, inc) * 6 (30)
Rnd 6.	(sc 2, inc, sc 2) * 6 (36)
Rnd 7.	(inc, sc 5) * 6 (42)
Rnd 8.	(sc 5, inc, sc 1) * 6 (48)
Rnd 9.	(sc 3, inc, sc 4) * 6 (54)
Rnd 10.	sc 27, inc, sc 26 (55)
Rnd 11.	F/O, weave in all loose ends.

Upper Part (with star shaped embellishment):

Use the crochet chart on page 13 also.

Rnd 1.	Make a MR. 1 ch (does not count as st) 5 sc into MR (5 sts)
Rnd 2.	(PM-1 in 8th ch, PM-2 in 11th ch and PM-3 in 14th ch) [1 sc, 21 ch, 1 sc] crochet 5 times (10 sc, 100 ch)
Rnd 3.	(work in the sc of previous rd, make sure that the chains are on the top of the work) 1 inc, 1 sc crochet 5 times (15 sts)
Rnd 4.	(sc 2, inc) * 5 (20)
Rnd 5.	(sc 1, inc, sc 2) * 5 (25)
Rnd 6.	(sc 3, inc, sc 1) * 5 (30)
Rnd 7.	(inc, sc 5) * 5 (35)
Rnd 8.	(sc 4, inc, sc 2) * 5 (40)
Rnd 9.	1 sc each in next 2 sts, 1 inc in next st, 1 sc in next st, work 1 sc by inserting the hook in ch with M-1 of rd 2 and in next st at the same time, 1 sc in next 2 sts, work 1 sc by inserting the hook in ch with M-3 of rd 2 and in next st at the same time crochet 5 times (45 sts)

Rnd 10. Rnd 10: 1 sc each in next 4 sts, 1 inc in next st, 1 sc each in next 2 sts, work 1 sc by inserting the hook in ch with M-2 of rd 2 and in next st at the same time, 1 sc in next st crochet 5 times (50 sts)

Rnd 11. Rnd 11: 8 sc, 1 inc, 1 sc crochet 5 times, do not F/O (55 sts) DIDNT FIX YET

Both pieces of the sanddollar are finished now. To shape the sand dollar, cut out a circle of cardboard. The diameter should be just a little smaller than the diameter of the lower part. Place the cardboard between the upper and lowerpart during crocheting Rnd 12. Fill the sand dollar before crocheting both pieces close completely. Only fill the upper part, the cardboard circle is situated directly on top of the lower part.

Join upper and lower part (Edging = Rd 12):

Use the yarn tail of the upper part. Holding both pieces together, right sides outside. Crochet the edges of both parts together as follows:

Rnd 12. (start in the next st of the upper part and in any st of the lower part – crochet in the st of the last round of both pieces at the same time) *2 ch (count as first dc), 1 dc in next st, 2 dc in next st, 1 dc each in next 3 sts, 2 dc in next st, 1 dc each in next 2 sts, 2 ch, 1 slst in next st – the slst lie above each peak of the 5-pointed-star, 2 ch, 1 dc in next st* crochet 5 times (start with 1 dc instead of the 2 ch for the next 4 repeats) (65 sts)

F/O, weave in the ends.

**PATTERN 27-29****COLOURS: 1**

Hyperbolic strip (US)

Make chain as long as you want your final piece.

Rnd 1. sc in second ch from hook (counts as one sc), 2 sc in same ch (for a total of 3sc in that ch. 3sc in each ch till end, turn

Rnd 2. ch 2, 3dc in each sc across, turn

Rnd 3. sc in first dc ch 2, sc in next st repeat to end

Fasten off and weave in end.

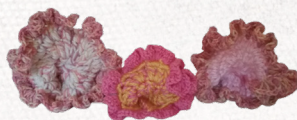
PATTERN 30

COLOURS: 1



Sea Fan Coral

Melithaea ochracea



This coral forms colourful fan shaped branches that catch flowing currents. Found on deeper or more exposed reef edges.

Fun fact: Pygmy seahorses hide in sea fans and match their colour.

Fan and funnel (US)

Rnd 1.	ch 5, ss in first ch to form ring
Rnd 2.	8 dc into ring, join with ss to top of first dc
Rnd 3.	3 dc in each of next 8 dc (24 total dc)
Rnd 4.	3 sc in next stitch to end. Join with ss in top of first sc.

You should now have a circular piece that is slightly imperfect

Take the piece and fold it in half. Keep your working loop at the top of the right-hand side. Partially close it up, creating the funnel aspect of the coral and giving it a "pedestal" to stand the finish piece.

Rnd 5.	sc in next st, going through both sides to seal it up 8 times (8 stitches total). Do not stitch the whole thing closed, just those first 8 stitches.
Rnd 6.	Now open up your piece and sc around until you reach the seam you just made.
Rnd 7.	Turn. Work 5dc in each sc around. This will cause the "ruffle" around the edge.

F/O and weave in ends. To stand, put seam side down with funnel end to the back. The closed part of your piece will prop up your coral.

Tentacle (make 90):

In the following pattern, the tentacles are described with 8 rnds of the colour (A). However, vary the length between 8 and 11 rnds so that they look more natural when sewn onto the body later.

To change colour, insert into the last stitch before changing colour and pick up yarn with old colour, end sc with new colour.

Use colour (A).

Start with a long thread beginning. You will need this to sew the finished tentacles to your cap right away.

Rnd 1–8.	5 sc (5st).
Rnd 9.	change to the colour (B), 5 sc (5)
Rnd 10.	5 sc, slip st, F/O (5)

Thread end of thread into a needle and through all back loop only. Pull thread closed. Sew thread.

Also sew all other threads to the top of the tentacles.

Now mix all the 90 tentacles and sew them to the lid with the long thread from the beginning. Sew them all in a total of 3 circles next to each other on the cap.

Body:

Use colour (B). 8 sc in to a MR.

Rnd 1.	(2 sc into the following st)*8 [16 st].
Rnd 2.	(2 sc into the following, sc)*8 [24 st].
Rnd 3.	(2 sc into the following st, 2 sc)*8 [32 st].
Rnd 4.	(2 sc into the following st, 3 sc)*8 [40 st].
Rnd 5.	(2 sc into the following st, 4 sc)*8 [48 st].
Rnd 6.	(2 sc into the following st, 5 sc)*8 [56 st].
Rnd 7.	(2 sc into the following st, 6 sc)*8 [64 st].
Rnd 8.	(2 sc into the following st, 7 sc)*8 [72 st].
Rnd 9.	(2 sc into the following st, 8 sc)*8 [80 st].
Rnd 10.	(2 sc into the following st, 9 sc)*8 [88 st].

Rnd 11.	(2 sc into the following st, 10 sc)*8 [96 st].
Rnd 12.	(2 sc into the following st, 11 sc)*8 [104 st].
Rnd 13.	(2 sc into the following st, 12 sc)*8 [112 st].
Rnd 14.	(2 sc into the following st, 13 sc)*8 [120 st].
Rnd 15.	(2 sc into the following st, 14 sc)*8 [128 st].
Rnd 16–23.	sc [128 M].
Rnd 24.	(2 sc into the following st, 15 sc)*8 [136 st].
Rnd 25–30.	136 sc [136 st].
Rnd 31.	(sc2, 15 sc)*8 [128 st].
Rnd 32–39.	128 sc [128 st].
Rnd 40.	(sc2, 14 sc)*8 [120 st].
Rnd 41.	(sc2, 13 sc)*8 [112 st].
Rnd 42.	(sc2, 12 sc)*8 [104 st].
Rnd 43.	(sc2, 11 sc)*8 [96 st].
Rnd 44.	(sc2, 10 sc)*8 slip st, F/O [88 st].

Filling the Body:

Now stuff the body with absorbent cotton. Stuff it only very lightly and leave the space in the middle a little free. This will make it easier to put the tentacles into the sea anemone later.

Crochet the cap to the body:

Now put the cap on the body with the tentacles facing up. Now crochet with colour (B) from the outside (see picture 5) through both layers with 88 sc the cap to the body. F/O. Sew the protruding thread.



PATTERN 31

COLOURS: 2



Honeycomb Coral

Diploastrea heliopora

This coral forms rounded colonies with neat hexagon patterns. It strengthens Indo-Pacific reef structures.

Fun fact: Its honeycomb surface looks perfectly tiled due to its growth rate being so even.

Honeycomb (US)

Use colour (A) yarn.

Row 1.	7 sc in MC. Please note that the crocheting should be wrapped inward – crochet inside out.
Row 2–3.	7 sc, sl st. Make ch 2, cut the thread and pull the tip out of the last ch st. Now, when you tie this knot, the last loop of the green part will not stretch and the circle will look aesthetically pleasing. Then tuck the resulting ponytail inside out. To attach colour (B) thread.
Row 4.	ch 3, inc bullion st in each stitch of previous row, sl st in the first bullion stitch of the row. You should get 16 bullion stitches in a circle (2 bullion stitches in each sc and sl st of previous row). Don't count the lifting loops and try to make them move to the wrong side of the coral.
Row 5–6.	(2 rows): 16 sc).

Sew along the bottom for 2–3 pairs of loops. Combine the parts into a large bunch.

Trace the resulting part on thick cardboard, cut out, smoothing out irregularities.

Cut out the same part from the felt, leaving an allowance of 2–3 mm around the perimeter.

Pin the felt to the base of the coral at the protruding points. Don't forget to include cardboard. Sew the felt to the base of the coral using a blanket stitch. Don't forget to add a little filler between the cardboard and the crocheted part of the coral during the sewing process.



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