

EARLY YEARS SCIENCE PROVISION MAP

Play, Observe & Ask

Small World

Learn: that some animals live in snowy places

You need: tray, cotton wool balls, white fabric, small world props, pictures and books about polar animals, Insta Snow* (see Water Play)

Play observe & ask:

- Which animals live there?
- Why do you think it is snowy there?
- Do you think it is always snowy there?
- What is the weather like there?
- What do the animals eat?
- Where do they live?

Sensory Play

Learn: water freezes when it gets colder; ice melts when it gets warmer

You need: ice cube trays, water, paint, lolly sticks

Water down the paint slightly so it is runny. Pop it in ice cube trays with lolly sticks. Freeze it over night – either in a freezer or outside it if is cold enough. Children can 'paint' with the ice-cube paint.

Play, observe & ask

- What happened to the paint when we put it in the freezer?
- What is happening to it now it is out of the freezer?
- What happens to the colours as you paint?

Water Play

Learn: to observe changes in materials

You need: bowls, water, artificial snow powder (e.g. Insta Snow*)

Play, observe & ask:

- What happens when you pour water on the powder?
- What happens when we use warm water?
- What can you make using the snow?
- What does the snow feel like?
- How is this artificial snow like real snow? How is it different?
- What happens if we leave some on the window sill for a week?

Learn: that ice melts and changes to water

You need: balloons filled with water and frozen in a freezer, water tray, warm water, cold water, jugs, salt, food colouring

Play, observe & ask:

- What happens when you put the ice balloon in the water?
- How can you make the ice balloon melt more quickly?
- What happens when you put salt on the ice balloon?
- What happens when you pour food colouring on the ice balloon?

Outdoors

Learn: to notice and describe signs of winter

You need: paper, pencils, cameras, seasons scrap books, weather chart/symbols, paint colour charts, magnifying glasses, photos of the same site from earlier in the year

Outside, encourage children to draw & talk about what they see (could revisit same site during different seasons and record in a seasons scrapbook). Ask the children to do a daily weather check (could keep a record in the classroom). Use paint colour charts to see how many different colours they can match (could repeat each season and compare your results).

Play, observe & ask:

- Where was this photo taken?
- What can you see here today?
- What is the same? What is different?
- What is the weather like today? Is it always like this?
- What colours can you find today? Are the colours you can see the same/different to last time? Why?
- What animals/bugs can you see/find?
- If there is ice - where can you see ice?

Learn: to recognise animal footprints

You need: snow

Do this activity early in the morning.

Play, observe & ask:

- What signs of animals can you see?
- How can we work out whose footprints there are?

WINTER / SNOW AND ICE



Role Play

Learn: to talk about the weather

You need: map, weather symbols, film-clip of weather forecast

Play, observe & ask:

- What is the weather like today?
- What was the weather like yesterday?
- What will the weather be like tomorrow?
- How can you tell?
- Which symbols match the weather today?
- What do you think the weather is like in other places?

Key Science Vocabulary

snow, ice, water, freeze, frozen, melt

solid, liquid, runny, stick, pour, heap

artificial

weather - warm, cold, hot, sunny, cloudy, windy, rain, snow, hail, forecast

Arctic animals (North Pole) - polar bear, reindeer, Arctic fox, Arctic wolf, Arctic hare, whales, seals, walruses

Antarctic animals (South Pole) - penguins, whales, seals

Further Science

Do all liquids freeze? Explore what happens to different liquids (e.g. orange juice, tomato ketchup).