

EXPLORING SCIENCE

WORKING SCIENTIFICALLY



How to plan a KS3 science curriculum that works for your school

Plan your KS3 science curriculum using our free **interactive Scheme of Work (iSOW)** in 3 simple steps...

Step 1: Create your scheme

Log into **ActiveLearn**, go to 'Plan' at the top of the screen, then click 'Create a new scheme'. Give your scheme a name and choose whether to deliver your KS3 course over 2 or 3 years.

Step 2: Decide the order you will teach the topics using drag and drop

The **iSOW** will automatically highlight any prerequisite topics.

Your scheme of work can be shared with your team.

On this screen you can amend your scheme of work to better suit your teaching needs:

- Drag and drop units around the scheme to reflect when you will teach them
- Edit the teaching hours allocated to each unit

1 Scheme options 2 Edit scheme of work

Course: Exploring Science: Working Scientifically Planned time: 246 hours (246 recommended)

show prerequisites [Collapse all terms](#) Archived units: 0

Year 1	Year 2
Autumn half term 1 (14h)	Autumn half term 1 (14h)
Biology 7A Cells, tissues, organs and systems (7h)	Biology 8A Food and nutrition (7h) Prereq: Biology 7A Cells, tissues, organs and systems
End Unit Test 7A End of Unit Tests (7h) Prereq: Biology 7A Cells, tissues, organs and systems	End Unit Test 8A End of Unit Tests (7h) Prereq: Biology 8A Food and nutrition
Baseline Tests (7h)	Chemistry 8E Combustion (7h) Prereq: Chemistry 8E Combustion
Chemistry 7E Mixtures and separation (7h)	End Unit Test 8E End of Unit Tests (7h) Prereq: Chemistry 8E Combustion
End Unit Test 7E End of Unit Tests (7h) Prereq: Chemistry 7E Mixtures and separation	Autumn half term 2 (14h)
Autumn half term 2 (14h)	Biology 8B Plants and reproduction (7h) Prereq: Biology 8B Plants and reproduction
Biology 7B Sexual reproduction in animals (7h) Prereq: Biology 7A Cells, tissues, organs and systems	End Unit Test 8B End of Unit Tests (7h) Prereq: Biology 8B Plants and reproduction
End Unit Test 7B End of Unit Tests (7h) Prereq: Biology 7B Sexual reproduction in animals	Physics 8I Fluids (7h) Prereq: Physics 8I Fluids

Step 3: Select lesson activities

Choose those most suited to your own style of teaching and the needs of your students.

A range of activities are available with accompanying teacher guidance.

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Scheme details

Return to schemes list

New KS3 science scheme Edit scheme Delete scheme

Course: Exploring Science: Working Scientifically Planned time: 246 hours

Scheme explorer Expand all

Scheme of work overview

- Year 1
- Year 2
 - Autumn half term 1
 - Autumn half term 2
 - 8I Fluids
 - 8I End of Unit Tests
 - 8B Plants and reproduction
 - 8Ba Classification and biodiversity
 - 8Bb Types of reproduction
 - 8Bc Pollination
 - 8Bd Fertilisation and dispersal
 - 8Be Germination and growth
 - 8B End of Unit Tests
 - Spring half term 1
 - Spring half term 2
 - Summer half term 1

8Be Germination and growth

Oh Suggested Print

Pearson published resources Expand all

- ActiveTeach textbook
- Starters
- Exploring Tasks
- Explaining Tasks
- Plenaries
- Homework Tasks

8Be Germination and growth

Topic 8Be focuses on germination and growth, building up to a look at the complete life cycle of a flowering plant.

Learning Outcomes

The progression bands Developing, Securing and Exceeding are used to indicate the demand of each activity.

Scheme explorer Expand all

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Starters

1: Life cycles 1

Ask students what a life cycle is and remind them of work at the end of Unit 7B in which they considered the life cycle of humans. Ask students to draw a life cycle for a plant. They could work in pairs for this to discuss ideas, but each student should produce their own diagram. Encourage them to draw their life cycles in the centre of a piece of A3 paper, which will allow additional notes and information to be added in Plenary 3.

Equipment: Piece of A3 paper.

Activity Type: Baseline Assessment, Formative Assessment

Level: Developing/Securing

2: Seeds

Show students some different seeds and ask questions to revise parts of previous topics (e.g. What are these? Where are they found? What sort of plants produce these? How are they formed?). Alternatively, encourage each student to come up with one question about seeds. Then choose students at random to ask their question and choose another student to answer. This works particularly well if you have random name picker software. (Some simple software is available on the Internet by searching for 'random name/student picker/generator' or 'student fruit machine'). Correct misconceptions as they occur and finish by asking students what is needed to get the seed to start to grow? Write the students' ideas on the board or a sticky note for analysis/amendment later in the topic.

Equipment: Random student picker software (optional).

Activity Type: Baseline Assessment, Formative Assessment

Level: Developing

3: Jumbled photosynthesis

Ask students to work together in groups to make a sentence out of each of these groups of three words: plant, photosynthesis, food; glucose, energy, respiration; reactants, products, word equation; chloroplasts, plant cell, photosynthesis. Ask random groups to read out one of their sentences and ask other groups to say whether they have made a sentence that is substantially different. Correct any misconceptions. Write an agreed revised/corrected form of each sentence on the board, acknowledging that students' own sentences may well be different

Other resources in ActiveLearn Front of class Student Books

Each topic is covered on a double-page spread.
Click on the **blue hotspots** to open the activities.*

* These are the same activities that feature in iSOW.

You will always find two hotspots at the start of a topic: one that links you to the Learning Objectives and another that links you to the worksheets.

Other hotspots link to videos, animations and exercises, as well as answers for questions on the page.

Click on any hotspot to see a brief description before you open it.

Homework and Practice Exercises

An extensive bank of online auto-marked homework and practice activities is available in the 'Exercises' tab of ActiveLearn. These are designed for student use in lessons or at home to cement their knowledge and skills.

Homework and practice activities are available in the 'Exercises' tab

On-screen hints and feedback help students work independently.

Learning aids contain extra information for students.

Germination and growth 1

Photosynthesis

Drag and drop the labels into the correct places on the diagram to show what happens in photosynthesis.

energy transferred by

cell inside leaf

The cell structure in which photosynthesis takes place is called a

in photosynthesis:

+ → +

gas from air from soil absorbed through plant roots gas released to the air a simple sugar

This is converted to for storage

glucose starch oxygen carbon dioxide wat

Reset activity Check answers Attempts ○○○

Activity 2 of 3 Results

All activities are auto-marked and results are tracked; students get instant feedback and you can see how they are progressing.

As a teacher, you can view your students' results and give feedback using the 'Task Report' section of your account.

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EXPLORING SCIENCE

Teacher books Student books Exercises

Front-of-class books

Exploring Science Year 7 ActiveTeach Exploring Science Year 8 ActiveTeach Exploring Science Year 9 ActiveTeach Presentation

Assessment materials

ActiveLearn

For more information on how to make the most of **ActiveLearn** click 'Help' at the top right corner of your **ActiveLearn** screen.