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# South Dakota 10 Biology – Alternate Sequence

**FREE PREVIEW**

Full-Year Teacher Planner, Blank Editable Planner & School-Submission Binder

This preview shows the real structure and a genuine sample of the completed planner. The full product contains 9 units, 36 weekly plans and 180 daily plans, plus blank editable versions of every form.

|                  |                                                           |
|------------------|-----------------------------------------------------------|
| State            | South Dakota                                              |
| Grade            | 10 (High)                                                 |
| Subject          | Biology – Alternate Sequence                              |
| Course category  | Science                                                   |
| Standards family | Science                                                   |
| Framework        | South Dakota Science Standards (adopted 22 April 2024)    |
| Issuing agency   | South Dakota Department of Education                      |
| Scope            | 36 instructional weeks · 180 instructional days · 9 units |

This is a statewide standards index, not a local course catalog. Course names, grade placement, electives, and graduation sequences vary by district.

## What you get

| Folder                  | Contents                                                                                          |
|-------------------------|---------------------------------------------------------------------------------------------------|
| 01 START HERE           | Read-me, contents, printing and digital instructions, standards verification guide, this preview  |
| 02 FILLED FULL YEAR     | Completed planner in colour and ink-friendly PDF, plus editable DOCX                              |
| 03 BLANK EDITABLE       | Blank planner in colour, ink-friendly and fillable PDF, plus editable DOCX                        |
| 04 ASSESSMENTS AND DATA | Baseline observation, quarterly rubrics, anecdotal forms, portfolio checklist                     |
| 05 SCHOOL SUBMISSION    | Submission covers, alignment summary, evidence checklist, observation, reflection, signature page |
| 06 LICENSE AND CREDITS  | Terms of use, credits and licences, copyright notice                                              |

The pages that follow are reproduced **exactly** as they appear in the full completed planner.

## Week 9 — Holding Steady

### Unit 3: Keeping a Cell Alive · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Essential question | How does a cell keep its inside different from its outside?                                                                 |
| Standards          | <b>Regulating Cellular Processes</b> -> <b>HS-LS1-1, HS-LS1-2, HS-LS1-3</b> — 3 standards; full text in the standards table |
| Learning target    | "I can explain homeostasis and distinguish active from passive transport."                                                  |
| Local dates        | _____ (enter your school dates)                                                                                             |

### Measurable objectives

- Students will engage in argument from evidence to explain the regulation of cellular processes that maintain homeostasis, including active and passive transport.

### Success criteria (student-friendly)

- "I define homeostasis in terms of a maintained difference."
- "I distinguish active from passive transport by energy use."
- "I predict the direction of movement from a gradient."

### Academic vocabulary

homeostasis, gradient, diffusion, osmosis, active transport, passive transport

### Materials and technology

- Notebooks
- Printed data
- Chart paper
- Water, salt and dialysis or similar as available

### Differentiation and supports

| Support area            | This week's plan                                                                                                                                                                                       |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Special education / IEP | Reduce group size; pair visual cue cards with all verbal directions; allow gesture or picture response in place of speech; pre-teach the week's target in a 1:1 warm-up.                               |
| Section 504             | Provide the child's documented accommodations throughout; permit movement breaks and alternative seating at any point in the sequence.                                                                 |
| Multilingual learners   | Introduce each vocabulary word with an object or image; accept home-language responses; send the vocabulary list home where a translation is available; pair with a peer who shares the home language. |
| Advanced / extension    | Ask the learner to teach the skill to a peer, extend the task, or record a demonstration for the class reference wall.                                                                                 |
| Intervention / reteach  | Reteach the target in a short small group using the same materials; split the day's check for understanding into two smaller steps.                                                                    |

| Support area | This week's plan                                                                 |
|--------------|----------------------------------------------------------------------------------|
| Enrichment   | Extend into an open-ended centre or project connected to the essential question. |

**Assessment and evidence**

Transport type predicted and justified from evidence.

**Family communication**

Ask your child what a cell has to spend energy on.

## Day 41 — A Difference That Has to Be Maintained

Week 9, Day 1 · Unit 3 · Standards: HS-LS1-1, HS-LS1-2, HS-LS1-3

|                   |                                                                                |
|-------------------|--------------------------------------------------------------------------------|
| Focus             | The idea.                                                                      |
| Learning target   | "I can explain homeostasis and distinguish active from passive transport."     |
| Vocabulary in use | homeostasis, gradient, diffusion, osmosis, active transport, passive transport |
| Local date        | _____                                                                          |

### Learning sequence

Connect: the membrane. Teach: homeostasis as maintaining an internal state DIFFERENT from the surroundings, and why any such difference tends to disappear on its own. Try: shared listing of differences a cell maintains. Apply: students list four and say which way each would drift. Reflect: maintaining a difference always costs something.

### Check for understanding

Student states what homeostasis maintains and why it costs energy.

### Differentiation in the moment

| If the learner...  | Then...                                                                   |
|--------------------|---------------------------------------------------------------------------|
| needs more support | Model the step again with guided support, then fade to a gesture cue.     |
| is ready for more  | Invite the learner to demonstrate for a peer or add a second example.     |
| is dysregulated    | Pause instruction, move to co-regulation, and return to the target later. |

### Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

### Teacher reflection (fictional example)

*Fictional Example — Customize and Verify Before School Submission.*

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

## Day 42 — Passive Movement

Week 9, Day 2 · Unit 3 · Standards: HS-LS1-1, HS-LS1-2, HS-LS1-3

|                   |                                                                                |
|-------------------|--------------------------------------------------------------------------------|
| Focus             | Down the gradient.                                                             |
| Learning target   | "I can explain homeostasis and distinguish active from passive transport."     |
| Vocabulary in use | homeostasis, gradient, diffusion, osmosis, active transport, passive transport |
| Local date        | _____                                                                          |

### Learning sequence

Connect: drift. Teach: diffusion and osmosis as movement down a gradient requiring no energy from the cell, with the direction predictable from the gradient alone. Try: shared prediction for four situations. Apply: students predict direction for five. Reflect: passive does not mean unimportant; it means free.

### Check for understanding

Student predicts the direction of passive movement.

### Differentiation in the moment

| If the learner...  | Then...                                                                   |
|--------------------|---------------------------------------------------------------------------|
| needs more support | Model the step again with guided support, then fade to a gesture cue.     |
| is ready for more  | Invite the learner to demonstrate for a peer or add a second example.     |
| is dysregulated    | Pause instruction, move to co-regulation, and return to the target later. |

### Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

### Teacher reflection (fictional example)

*Fictional Example — Customize and Verify Before School Submission.*

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

## Day 43 — Active Transport

Week 9, Day 3 · Unit 3 · Standards: HS-LS1-1, HS-LS1-2, HS-LS1-3

|                   |                                                                                |
|-------------------|--------------------------------------------------------------------------------|
| Focus             | Against the gradient.                                                          |
| Learning target   | "I can explain homeostasis and distinguish active from passive transport."     |
| Vocabulary in use | homeostasis, gradient, diffusion, osmosis, active transport, passive transport |
| Local date        | _____                                                                          |

### Learning sequence

Connect: passive movement. Teach: transport AGAINST a gradient, why it must consume energy, and how to tell the two apart from evidence rather than by being told. Try: shared analysis of two data sets, deciding which transport is involved. Apply: students classify three cases from evidence. Reflect: movement against a gradient is the signature of active transport.

### Check for understanding

Student classifies transport from evidence.

### Differentiation in the moment

| If the learner...  | Then...                                                                   |
|--------------------|---------------------------------------------------------------------------|
| needs more support | Model the step again with guided support, then fade to a gesture cue.     |
| is ready for more  | Invite the learner to demonstrate for a peer or add a second example.     |
| is dysregulated    | Pause instruction, move to co-regulation, and return to the target later. |

### Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

### Teacher reflection (fictional example)

*Fictional Example — Customize and Verify Before School Submission.*

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

## Day 44 — Investigating a Gradient

Week 9, Day 4 · Unit 3 · Standards: HS-LS1-1, HS-LS1-2, HS-LS1-3

|                   |                                                                                |
|-------------------|--------------------------------------------------------------------------------|
| Focus             | Practical.                                                                     |
| Learning target   | "I can explain homeostasis and distinguish active from passive transport."     |
| Vocabulary in use | homeostasis, gradient, diffusion, osmosis, active transport, passive transport |
| Local date        | _____                                                                          |

### Learning sequence

Connect: prediction. Teach: an investigation into movement across a barrier at different concentrations, run with ordinary materials. SAFETY: eye protection where anything can splash; nothing tasted or smelled; hands washed afterwards; NO HUMAN OR ANIMAL MATERIAL IS USED. NO-EQUIPMENT ROUTE: a supplied real data set gives the same analysis, and the standard is met by analysing it. Try: shared setup and prediction. Apply: students run or analyse and record results. Reflect: record what happened, including if it disagreed with your prediction.

### Check for understanding

Student records and interprets transport data.

### Differentiation in the moment

| If the learner...  | Then...                                                                   |
|--------------------|---------------------------------------------------------------------------|
| needs more support | Model the step again with guided support, then fade to a gesture cue.     |
| is ready for more  | Invite the learner to demonstrate for a peer or add a second example.     |
| is dysregulated    | Pause instruction, move to co-regulation, and return to the target later. |

### Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

### Teacher reflection (fictional example)

*Fictional Example — Customize and Verify Before School Submission.*

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.



## Day 45 — Arguing From the Evidence

Week 9, Day 5 · Unit 3 · Standards: HS-LS1-1, HS-LS1-2, HS-LS1-3

|                   |                                                                                |
|-------------------|--------------------------------------------------------------------------------|
| Focus             | The standard's verb.                                                           |
| Learning target   | "I can explain homeostasis and distinguish active from passive transport."     |
| Vocabulary in use | homeostasis, gradient, diffusion, osmosis, active transport, passive transport |
| Local date        | _____                                                                          |

### Learning sequence

Connect: results. Teach: building an argument from the week's evidence that regulated transport maintains homeostasis, and answering a challenge. Try: shared drafting. Apply: students write one argument and answer one challenge. Reflect: the argument rests on your data, not on the textbook.

### Check for understanding

Student argues from evidence for regulated transport.

### Differentiation in the moment

| If the learner...  | Then...                                                                   |
|--------------------|---------------------------------------------------------------------------|
| needs more support | Model the step again with guided support, then fade to a gesture cue.     |
| is ready for more  | Invite the learner to demonstrate for a peer or add a second example.     |
| is dysregulated    | Pause instruction, move to co-regulation, and return to the target later. |

### Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

### Teacher reflection (fictional example)

*Fictional Example — Customize and Verify Before School Submission.*

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

## Important before you buy

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- This is a **digital download**. Nothing is shipped.
- The planner is **calendar-neutral**: Month 1–9, Week 1–36, Day 1–180, so it fits any school calendar. You add your own dates.
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## Source citation

South Dakota Department of Education. South Dakota Science Standards (adopted 22 April 2024). South Dakota writes its high school science standards as a single band rather than by course, so this row cites the band's standards in the disciplines this course covers, together with the engineering design standards the state applies across all of them. Retrieved 2026-07-27 from <https://doe.sd.gov/contentstandards/science.aspx>